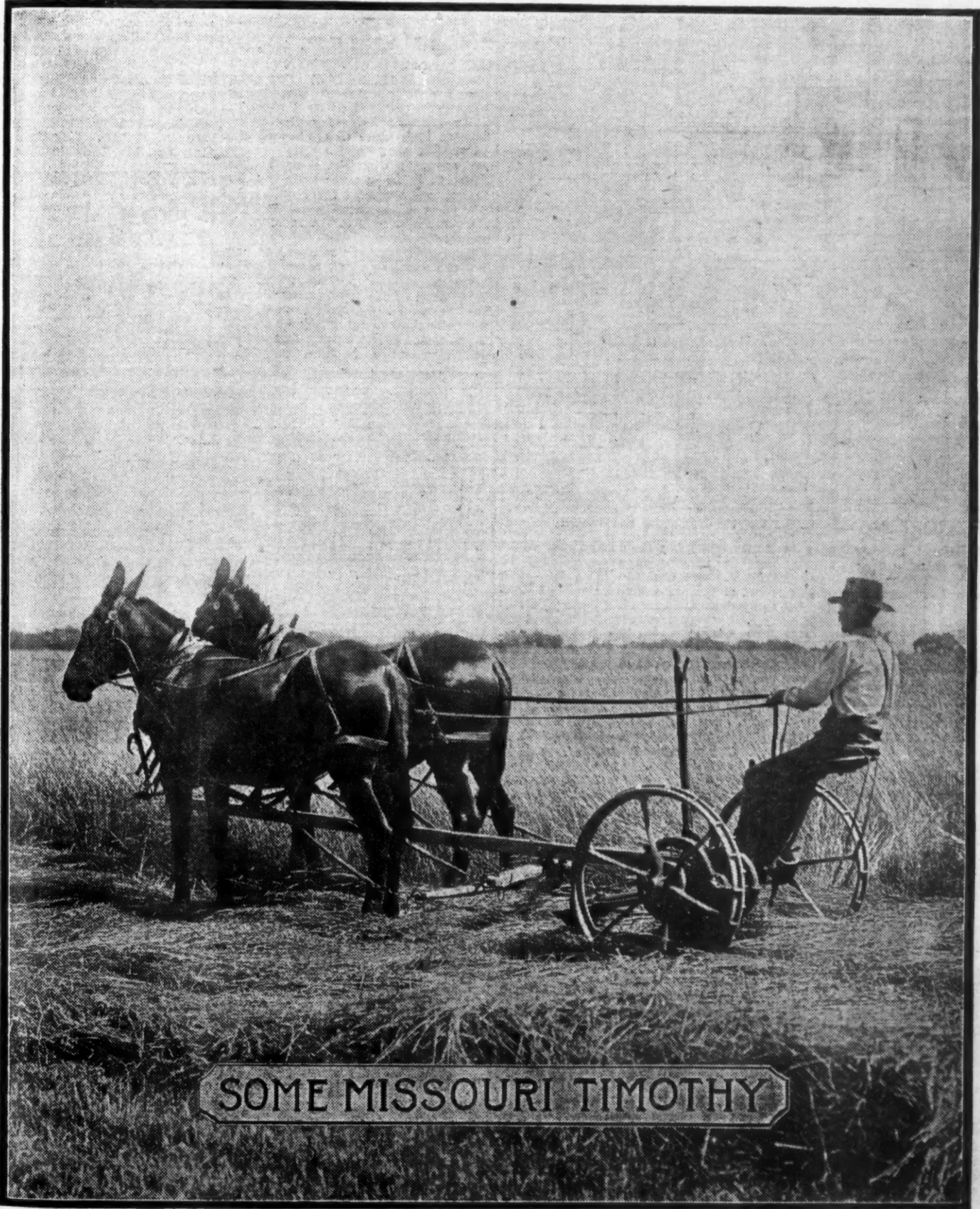


Sixty-Seventh Year.
ST. LOUIS, MO., OCTOBER 1, 1914.
Volume LXVII. No. 40.



SOME MISSOURI TIMOTHY

IN THE POULTRY YARD

THE RENTER AND POULTRY.

Poultry raising is for the poor man who needs easy money. If every renter, that is, small farmer, would keep 300 or 400 hens, 50 or 60 ducks and 50 or 60 turkeys, they would not be renters long. They would soon be land owners. The hens would furnish chickens to eat when company comes. They would lay enough eggs to keep up the table the year around. Every one should raise his own meat and bread.

The ducks would make good, soft feather beds and besides give feathers to sell at 50 and 60 cents a pound as well as several eggs. The turkeys at Thanksgiving time would weigh 20 or 25 pounds and are worth 23 to 25 cents a pound—count this up and see what you would make and you would never miss the feed with what waste they would pick up. Mr. Renter, count up what you would make on the fowls and count what you make on your crop, and see the difference.

Try this one year. If you don't



will allow the tail feathers to project and get broken.

Food and water will probably get spilled, but if the express shipment is for some distance, both should be put in. A piece of cabbage should be fastened to the inside of the crate and will afford the bird much pleasure. An ear of two of corn may also be put in. For short distances, shipments should be started in the morning, that they may reach their destination the same day. Longer shipments should be started at night, but they should never be kept on the road a moment longer than necessary. Never ship on Saturday, as a delay is always liable to occur, and the possi-



POULTRY WILL HELP THE RENTER TO BECOME AN OWNER.

know much about poultry write to me about anything, or to Colman's Rural World. It won't cost you a cent. If you have any sick poultry, write me and I will tell you free of charge what is the matter and how to cure, also send any question that comes up in the poultry business—J. E. Ledbetter, Ledbetter, Ky.

SHIPPING CHOICE STOCK.

As the season of fairs and shows approaches and the sale of stock becomes more brisk, it is well to consider the question of shipping the choice birds. It is not uncommon for pure-bred fowls to arrive at their destination with broken tail feathers, dirty, ill-kept appearance, and general run-down-at-the-heel look that disgusts the purchaser. The result is a letter of complaint to the sender by first mail. Such incidents can be avoided by a little care. A practical poultry raiser of New Hampshire, writing in a Michigan farm paper, gives the following advice to shippers which could be followed with profit by poultrymen in all parts of the country:

In the first place, birds which are liable to be shipped to a considerable distance should be kept tame. This may be done by frequent handling. A few days before shipping feed them extra well and dust with insect powder. Never ship a bird infested with parasites. It is well to have a good supply of boxes on hand suitable for single birds or larger numbers. Such boxes can usually be obtained at a nominal figure from the local grocery store. Good crates for one or two hens may be made from ordinary orange boxes, by strengthening the sides and bottom. These are light and can be properly arranged for ventilation. They are not quite high enough for male birds, but may easily be made higher. Never ship in a crate that

blity of having them stay over night in the narrow coop should not be risked. See that the crate is strong and at the same time have it as light as possible. A small quantity of fine hay or packing material should be put on the floor of the coop.

The address of sender and receiver, plainly written on a card, should be tacked on the top. To guard against the possibility that this may be torn off, write the name of the receiver with heavy pencil on one of the slats of the crate. Finally, notify the buyer in advance when he may expect to receive the birds. The observance of a few of such details may save considerable annoyance and complaint.

PUTTING THE FLOCK ON A PROFIT-PAYING BASIS.

In these times of high prices one cannot be too careful in the selection of his flock of winter profit producers. Feed prices continue high and no experienced poultry breeder will retain anything in the flock that fails to show indications of being a profit producer and a credit to the owner. No careful breeder will feed high-priced grain to fowls of every description, regardless of the returns. It will be time well spent, says a writer in the Michigan Farmer, and money in the pocket of the owner, if he will go over the flock often, noting carefully the specimens that stand out from the rest of the flock, that show every indication of abounding in vigor and productive qualities, and marking or banding them so they can easily be identified later, and retaining only these when it comes time to put the flock in winter quarters.

Some may contend that all the birds in their flock are good ones and should be held over, but this is not the case. In every flock, no matter how carefully bred and provided for, there is a certain per cent that should

go to the block. They may make a good general appearance, but, nevertheless, they are deficient in one or more respects. They may have been lacking in constitutional vigor, although not apparent on the surface. Or some disease may be latent that will crop out in the progeny.

When looking over the male side of the flock we must practice even closer culling than with the females. We cannot retain near the number of males for our own use as we can pullets and we surely should not try to dispose of any inferior bird to our customers. All the males that do not come up to a certain standard set for them should be disposed of on the market for table purposes. A male that is lacking in size and constitutional vigor cannot make a good breeder and no conscientious poultryman will offer such to his customers. It is my contention that a male bird that has not the quality to entitle the owner to at least \$3.00 per head should not be retained over winter. Very little profit is derived when the birds must be fed all winter at the present high price of grain and then be disposed of in the spring at no higher price, often at even a lower figure in order to clear them out. Far better to dispose of them on market when but a few months old and give the room and care to the more promising specimens.

Some poultrymen are prone to neglect the growing stock now that they are attaining size and appear able to take care of themselves, and herein they err. At no time should their wants be looked after more carefully than now. Neglect may throw them off their feed and cause a setback

from which it will be hard for them to recover. We must strive to have them keep up continuous growth. Feed and good care now will go a long way in putting them on a profit-paying basis later. While, on the other hand, if they are slighted now all our previous efforts may avail nothing. The growing stock should be given lots of room, and be kept comfortable and free from vermin. Their roosting room should be amply large to prevent overcrowding. If the males begin to annoy the pullets, the sexes should be separated. The pullets cannot make proper growth when constantly annoyed by the precocious cockerels.

If you have earth floors in your poultry house, after scraping off the top layer douse the ground thick with some disinfectant before putting on the new layer of fresh dirt or gravel.

After the heavy-laying duck is through laying you find that she is nearly all bone, the fat having gone into the eggs. She must gather on more fat before she can take another round at laying. If well fattened before winter, even some of the breeds that as a rule only lay in the spring may lay a while in the fall. Ducks brought on a new place in the spring often refuse to lay at all that first season through. This argues for buying breeding ducks in the fall.

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CREAM of the DAIRY NEWS

BEGINNING IN THE DAIRY BUSINESS.

All successful farms are individual in their systems of management, usually because the men who have wrought success out of them have been men of enthusiasm, brains and hard work with an eye clear to see every opening. In almost every instance chance governed the choice of location and the kind of farming that they followed. Yet they had learned to utilize the full possibilities of their farms and made their work go hand in hand with their laborious days of toil.

Every man, to be successful on the farm must have an idea that will work out under his surrounding conditions, points out a writer in the Farmer's Guide. "See a want and fill it," is the maxim of commerce. A farmer can ill afford to scatter his forces. He must know his opportunity when it comes to him. He must follow it until he has supplied the wants it furnishes. This is the solution of why some men are successful milk producers, and others are noted growers of swine; why some go into the horse industry, and others into the raising of beef-producing cattle.

The old adage, "Be sure you're right, then go ahead," is directly applicable to the start into dairying on a more or less extensive scale. To get a good start means that success is at least well assured in almost any undertaking, and I shall completely ignore another old saw which suggests anything different about endings under opposite conditions.

In the first place, starting a dairy should be well considered before laying definite plans. The project should be talked over in the family. The wife ought to have a chance to express her opinion, and her ideas may usually be depended on to be not far out of the way on any question of importance. If there are growing boys in the family it should be talked over with them also, for their assistance will be needed in the milking and the care of the cows. If there are no boys is there other help which can be relied upon by hiring, or will the owner have to do most of the work himself?

Is there a shipping station conveniently located, or is there a good market other ways, or is there a creamery or cheese factory within a reasonable distance so that long hauls may be avoided? Are the roads reasonably good between the farm and the place where the milk will have to be hauled? In fall and spring when the frosts make the roads bad this means much to the man who must travel them every day rain or shine. If there are others on the route and they combine to hire a man to do the hauling or take turns in doing it themselves this means heavier loads to handle, all of which works into the convenience or inconvenience of shipping milk.

These things having been favorably passed upon, let us see what suggestions will help the man who is just starting in the dairy industry. He must not forget that upon himself individually rests the responsibility to a very large extent, and his must be the brain to run the business end of it. Moreover, he must be a man with a keen interest in cows, a student of cow nature, and something of a scientist to boot, for the day of scientific farming is here and will not, cannot, be ignored. To attain success he must know or be willing to learn how to formulate a balanced ration. He must be familiar with such subjects as deal with carbohydrates and protoid and know where to find them in the various foods grown upon the farm, as well as purchased, and how best to combine them as a ration for his animals. Yet to the man of ordinary intelligence there is nothing of a scientific nature connected with the undertaking that need deter him from entering upon it.



The next step is to decide upon the breed of cattle to keep. If he is a poor man, buying high-priced stock may be out of the question, although if it can be in any way managed the purchase of one or two such animals will prove a good investment. A good way is to buy a young calf or two of the breed selected. These quickly grow to maturity and money also. A chance to get a calf cheaply may sometimes be found through people in town who keep but one cow for family use. Another way is to buy an aged cow of good breeding, which can usually be



A PURE RUNNING STREAM MAKES CONTENTED COWS—AND MORE MILK.

gotten cheaply. This plan is not always satisfactory, however, as such are apt to be shy breeders. Having tried both plans, I would recommend the purchase of well-bred heifer calves which may be had at moderate prices, considering their value.

The matter of breed is one worthy of much careful thought. What breed to select depends something upon what disposal is to be made of the milk, also upon the personal preference of the individual. If milk is to be sent to a condenser, the Holstein breed is all right, as these cows give a large volume of milk. For the production of butter fat or where cream is to be sold, there is no question of the supremacy of the Jersey or the Guernsey. The man who decides upon either of these breeds with which to go into the dairy business will make no mistake if that is what he wants.

In breeding the cows the best pure-bred sire obtainable is, of course, the only kind to use. He should be retained in the herd as long as possible. Frequent changes are not to be recommended. Worst of all is the practice of using a Jersey one year, a Holstein the next, with a Shorthorn or Red Poll the third. And one should not try his hand at improving his herd by cross breeding. Violent crosses are very undesirable. There are enough good animals to be had in any breed, and nothing will be gained by mixing them. It may be thought that by securing a Jersey-Shorthorn cross or a Jersey-Holstein that the result would be a larger yield of rich milk, but this is not the case. The breed selected is the one to stick to and this should, in every case, be a pronounced, acknowledged dairy breed. It is very important that the cows are tested from the very beginning. The ribbon cows are thus detected and the best producers determined. I would keep no cow that does not show better than a 4 per cent test in a butter or cream dairy.

INDIANA CREAMERYMEN ORGANIZE.

Indiana now has a permanent organization whose purpose it is to develop and improve all branches of the dairy industry in the state. It is to be known as the "Indiana Manufacturers of Dairy Products." Together with the State Dairy Association it should be a potent factor in the development of dairying in this state.

The final organization and adoption of the constitution occurred at a meeting held in Indianapolis, August 27.

R. F. Miller called the meeting to order and addresses were made by Prof. O. F. Hunziker of Purdue University, W. W. Marple of Chicago, G. L. McKay, secretary of the National Dairy Union, and C. R. George of Purdue University. The following officers were elected: President, R. F. Miller, Topeka; vice-president, John A. Risch, Vincennes; secretary-treasurer, C. W. Hale, Indianapolis. An executive com-

more without losing in quality.

Buttermilk cheese may be eaten alone, or like cottage cheese, mixed with cream. For use in sandwiches, or salads, it may be mixed with butter, Spanish pimento, paprika, chopped pickles, olives, or nuts.

PLOWING THE LONG WAY.

Suppose a field 40x80 rods is to be plowed. Let us consider the actual advantage of running the furrows the long way as against running them the short way.

If a 12-inch 2-way plow is used the number of furrows lengthwise will be 660, while the number crosswise will be 1320. There will therefore be 660 turnings in plowing lengthwise, and twice as many in plowing crosswise. If we may assume 30 seconds are required for once turning, the total time spent in turning is 330 minutes or 5½ hours for the one, and 660 minutes or 11 hours for the other.

If the plow is drawn at the rate of two miles per hour, 3.3 per cent of the time of plowing crosswise is consumed in turning, while by plowing lengthwise 1.6 per cent would be consumed in turning. There are of course other economic advantages in plowing the long way.

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Cattle

THE PAST, PRESENT AND FUTURE OF THE CATTLE INDUSTRY.

The subject, "The Past, Present and Future of the Cattle Industry of the United States," is broad in its scope and what I say should give an idea of what I think the future holds in store for you along this line. To substantiate my conclusions it is necessary I should take in almost the Western Hemisphere.

I shall commence at a date 44 years back to the spring of 1870, when I landed in Texas; took employment on a farm near Austin. This farm bordered on the cattle trail leading from Southern Texas to the great undeveloped (so far as cattle were concerned) Northwestern states and territories.

All through March, April and May of that year there were large herds of cattle passing along this trail by the field in which I was plowing, on their way to the Northwest. Seeing those cowboys on horseback and comparing their vocation with mine (pulling a bell cord over an old gray mule) I there and then formed a resolution to take the trail the next year when my term of employment had expired.

My friends, that resolution formed at that time between those plow handles on a very hot day in May is responsible for my appearing before you today, and undertaking to tell about the past, present and future of the great cattle industry of this country.

The pioneers of the cattle business did not keep in close touch with conditions at market centers; however, within the last decade or two more attention is being paid each year by the producers of livestock to market conditions, until at the present time the man who produces the animal is about as well informed on the value as the regular shipper. Hence, high market for livestock in market centers reflects its influence in prices more readily on the range among the producers than heretofore.

Cattle Prices From 1870 to 1884.

In 1870 stock cattle in Western Texas were selling for \$4 and \$5 per head; good yearling steers \$3; two year-olds \$6; three-year-olds and cows \$9; four-year-olds \$12 per head. This same class of cattle gradually increased in price up to 1880, when yearling steers were ready sale at \$12; two-year-olds \$16; three-year-olds \$20; stock cattle \$20 to \$25 per head, and the demand was greater than the supply. This demand, however, did not come from market centers, but from ranch owners from the Northwestern states and territories.

These prices were maintained until 1884, which for a long period of time, was the last year of high prices. The demand for cattle in the Northwestern states and territories during this gradual advance in price was such as to cause from 400,000 to 800,000 head to be driven annually by trail out of Texas and sold to ranchmen in the Northwestern states and territories. This great movement, so far as my personal knowledge goes, was from 1870 to 1884, during which time millions of cattle were disposed of by Texans to Northwestern cattlemen.

Decline in Price From 1884 to 1893.

In 1884—the year cattle began to decline in price—I drove north out of Texas and sold 45,000 head; delivered them in five or six different states and territories to ranch owners, receiving for same \$16 for yearlings; \$20 for two-year-olds; \$25 for three-year-olds and cows.

In addition to the trail movement from Texas from 1870 to 1884 there were thousands of female cattle transported by rail from eastern states to western states, where they found ready sale at good prices and were placed on ranches for breeding purposes.

When the decline in prices began in the fall of 1884 no one in the business fully realized the number of cattle the country contained. Nor did they stop to consider the great preparations that had been made for improving and increasing the cattle of this country. They declined almost steadily each year thereafter until 1892 and 1893, when the bottom seemed to have been reached. 1893 being the year of the

great panic when extreme low prices prevailed. These low prices continued until about 1900, when the high water mark in point of number was reached.

To substantiate and prove what I say, in 1892—just 10 years after stock cattle were selling for \$20 and \$25 per head—I bought in Southwest Texas 10,000 head of graded stock cattle at \$6.30 per head. The 30 cents went to commission men and the \$6 to the owners. In this trade the calves were thrown in and out of 10,000 cattle a guarantee was given me there would be at least 2,500 three and four-year-old steers. There were 100 registered bulls included in this sale. These cattle were driven 30 miles, delivered on board the cars at this remarkably low price. I recite this particular instance to convince you I am not dealing in heresay, but absolute facts.

Cattle in the United States From 1850 to 1914.

A few statistics may be of interest right here, as applied to the beef breed of cattle in the United States:

Year.	Number.
1850	11,393,000
1860	17,034,000
1870	14,885,000
1880	23,482,000
1890	34,851,000
1900	50,583,000
1910	41,178,000
1914	35,858,000

The falling off between 1860 and 1870 was caused by the civil war.

From 1870 to 1899 cattle of the beef breed kind increased from 14,000,000 to 50,000,000 head, within 30 years, and during the last 10 years of this period our export trade grew to enormous proportions, at the same time stockmen had lost interest in the business. Cows and calves were being slaughtered by the thousands; the business was so unprofitable and discouraging that livestock producers made little or no preparations for carrying their livestock through the winters, hence, millions died for want of attention.

Notwithstanding all this devastation, cattle increased up to 1900, passing the 50,000,000 head mark, exclusive of 17,000,000 of the dairy breed.

Now, then, is it any wonder that I have some misgivings as to the shortage seven to ten years hence when almost every country on the Western Hemisphere is bending all its energies to improve and increase their number of livestock so as to avail themselves of our free market. I fear the shortage existing today will by that time be eliminated and a surplus created.

Cattle in Cattle-Producing Countries.

To illustrate: The countries in which we are mostly concerned as beef producers, which can and no doubt will develop strong competition with us in the livestock-producing line are Canada, Mexico, Argentina, Australia, Brazil and New Zealand. There are many other countries in Central and South America, but these named and in rotation given are, in my opinion, the greatest cattle producers in the world (save and except, possibly, the United States) and the inhabitants of these countries are turning their attention and energies to the production of livestock. Canada with its 7,000,000 population has 7,000,000 cattle and its possibilities as a cattle-producing country are not to be ignored. Mexico with a population of 15,000,000 people and 5,000,000 cattle will be one of the greatest cattle-producing countries in the world if given an opportunity to develop this industry. Argentina, whose population is estimated to be 7,000,000 has 29,000,000 cattle, more than four head per capita. Australia with 4,000,000 people has about 12,000,000 cattle. Brazil with an estimated population of 20,000,000 people has approximately 30,000,000 cattle. New Zealand with a population of a little over 1,000,000 has 2,000,000 cattle.

I believe I am safe in asserting all of these countries as well as the United States are capable of producing two or three times as many cattle, and am sure this is true of the United States.

By summing up the cattle in the six countries I have just mentioned and adding 56,000,000 head for the United States, including dairy cattle, we have a grand total of 141,000,000, and I do not believe I am extravagant in my estimates when I say it is possible and highly probable this number of cattle will be doubled within the next six or

eight years, making a total of 282,000,000 head in the seven countries named, including the United States. In addition to this four of the named countries, including the United States, have about 250,000,000 sheep as good as the best in the world.

High prices of cattle and beef stimulate and increase production on the one hand and curtail and reduce consumption on the other, thus both working towards the one inevitable end—greater production and lower prices. As proof of the fact that high prices will eventually increase instead of diminish the supply of cattle in the country, I give you results of my investigation from five of the principal markets. Receipts of calves at the five principal markets were 20 per cent less in 1913 than in 1912, due probably to growers holding back their calves. Shippers and speculators bought 28 per cent more calves in 1913 than in 1912; due, probably, to the strong demand for heifer calves on the farm and range. Packers bought 24 per cent less calves in 1913 than in 1912, due probably to growers holding back their heifer calves. Packers bought 2 per cent less grown cattle in 1913 than in 1912, due probably to cattle growers holding back their cows.

Recent Receipts at Market Centers.

The combined receipts at the seven principal markets in the United States in the year 1900 were about 1,179,344 head. This number was increased each year to 1910, when 9,265,408 head were received. Each year since 1910 less cattle have been received at these same markets, until 1913 had only 7,904,552 head.

As to receipts of calves in 1900, these same markets received 304,310 head and this number increased each year to 1910, when 981,309 head were received. As in other cattle, the receipts of calves have been less each year since, until 1913, when 740,662 head were received.

To my mind these statistics prove the stock farmer and ranch owner are holding back their breeding stock for future use, and this is incontrovertible when I tell you the government statistics in 1913 over 1912, and this, coupled with the fact that in 1900 53 per cent of all beef breed of cattle in the United States were females and in 1910 they had gained on steers until 65 per cent were females, and by 1914 I am safe in estimating 70 per cent of all the beef breed cattle in the United States are females.

Dairy Cattle.

In order that you may not become confused as to the kind of cattle I have reference to in this address I will give you briefly the number of the dairy breed of cattle in the United States since 1850. In that year, according to the government reports, we had 6,385,094 head of cattle. Each year from 1850 to 1914 this breed of cattle has made a steady and substantial increase in numbers until today we have 20,737,000 dairy cattle in United States, none of which I have taken into consideration except in one instance where I credit the United States with 56,000,000 head. However, I believe this breed will have to be reckoned with in the future of our beef supply. The time has passed when a little dairy calf is knocked in the head as soon as born.

World-Wide Shortage.

All the best authorities on this subject agree there is a world-wide shortage of cattle. There has been an actual decrease in the world's meat products, especially of beef, in the last decade. But my knowledge and faith in the possibilities of the United States as a cattle-producing country leads me to believe this country will be the first to recover among those nations capable of producing a surplus, and that within the next 10 years we will have overcome the great shortage and be able to supply our home consumption, at the same time be in a position to enjoy a profitable export trade.

There is great danger, however, of foreign countries increasing their beef products materially, and importing into this country a supply that may discourage our livestock producers and farmers to the extent that they will not produce the quantity of beef they would if the tariff had not been removed.

You will observe I express some misgivings as to the ultimate benefit

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to be derived in this country from the abolition of the tariff on livestock. My idea is, if this government had retained a reasonable duty on livestock it would have encouraged the production to an extent we would in a few years be exporting cattle and the products thereof. It is certainly more profitable for the people of any government to be in a position to export their surplus than to be the dumping ground for the surplus of other countries, for the necessities of life. Briefly speaking, it would be more profitable for the people of the United States to help feed the world than for the people of the world to help feed the United States.

(Extract of an address by Ike T. Pryor before the Thirty-Eighth Annual Meeting of Texas Cattle Raisers at Fort Worth.)

QUARANTINE RAISED ON MEXICAN BEEF CATTLE.

Hereafter cattle from quarantined districts in Mexico which are intended for immediate slaughter in the United States can be shipped direct to slaughtering centers in this country without the 60-day detention on the border to which they have hitherto been subjected, according to a recent announcement from the Federal Department of Agriculture.

An amendment to the regulations governing the shipment of cattle from tick-infested regions, providing for this, has been signed by the secretaries of agriculture and the treasury, and goes into effect immediately. This amendment is known as Amendment No. 1 to Bureau of Animal Industry Order No. 209.

Under the former regulations, cattle shipped from tick-infested areas in Mexico were kept within the quarantined area of Texas for 60 days as a precautionary measure against the spread of the pest in the rest of the United States.

The new amendment applies only to such cattle as are destined for immediate slaughter. Under certain restrictions these can now be transported directly to slaughtering centers without the former delay.

Walter Cox recently added another trotter to his already large stable, purchasing the western mare Simmona, 2:15½, a daughter of Simmons Star, dam Elsie Mack by McShedd. In her campaign last season through Iowa and Kansas, Simmona, 2:15½, took part in nine races, winning six of the number.

Weekly Market Report

Cattle Weak—Hogs Off—Horses and Mules Scarce.

CATTLE—The usual light Friday supply was in order in the native division. The combined estimate called for 2,500 head, of which around 1,500 were for the native division. This is a good run, however, for a Friday market. There was nothing of any consequence in the beef steer line, just a few odds and ends of medium grade stuff being received. Not enough offered to give the market a test and consequently prices were nominally steady.

Cows and heifers made up the majority of the supply and even then there was just a moderate supply available. Considering the fact it was Friday, the market was on a fairly good basis and the movement right active. Prices were about steady throughout, although there were some dull spots, which are generally apparent at the close of the week. Vealers were steady, with few prime kinds offered. A good clearance was effected in the native division. Some native Oklahoma steers sold for \$7.35.

Just a moderate quarantine supply when compared with the runs of the fore part of the week, but still it was of fair volume for a Friday, and should the guess materialize the current week will have proved the largest of the year in the quarantine division. Most of the showing was from canner territory, Arkansas being particularly well represented.

The supply of Texas and Oklahoma steers lightest, the smallest run of the week. Some light-weight Oklahomas at \$6.70 were the only ones available. There was a fair demand for them and they sold steady. The trade in canners and she stuff was hardly satisfactory. Supply was a little too large for the demand and the market was around a dime lower. Yearlings and heifers also sold about a dime lower.

HOGS—There was but a moderate supply and receipts were the smallest of the week, being but a little more than 6,000 head. The market was again lower and the lowest in many weeks. When the market opened a few loads of hogs were sold at steady to 5c lower prices, but the general trade was on a 10@15c lower basis and the close was dull on the plainer offerings. Packers were bearish and succeeded in getting their hogs away down the line around noon and later. The top was \$8.90 for a single load, while the bulk of the hogs went at \$8.50@8.90.

What hogs suited shippers and city butchers brought \$8.75 and up to the top and the hogs around the top contained a little more weight than any previous day this week. There were many plain grade hogs with weight that went to the packers at \$8.25@8.45 and hogs at \$8.50@8.65 to the packers were right good. Rough throw-out packers sold mainly at \$7.85@8.00 and there were many, as the buyers sorted their purchases pretty close.

Strictly good pigs and lights sold right well, but still there were poorer grades that did not go as readily, and prices were irregular and in many cases unsatisfactory. Best lights under 165 pounds sold at \$8.50@8.80, fair grades went at \$8.25@8.50, best pigs under 125 pounds \$8.25@8.50, fair to medium \$7.35@8.40 and the common kinds \$6.50@7.25.

SHEEP—There was nothing of any consequence offered on the sheep market, the receipts practically all being either direct to the packers for slaughter or were breeding ewes billed through and not offered for sale. It was but natural that the market was very quiet. Buyers were out in force and wanted a moderate number of sheep and lambs.

During the week the market on lambs has been on the decline and shows a big loss from the latter part of last week on sheep and lambs. Lambs are in the neighborhood of \$1.25 lower, while sheep are off 50c. Best fat lambs are now selling at \$7.50@7.65, fair grades \$7@7.40 and the culls and others that are not any better than culls at \$5.50@6.75.

Practically all of the mutton sheep are now going to the killers at \$5, but on this basis they are finding ready

sale. Breeding ewes are bringing \$5.25@5.75, choppers and good stockers \$4@4.75, plain stockers \$3.25@3.90 and culls and other common sheep \$2.50@3.00, while the bucks are selling at \$4@4.25.

HORSES—There was no native auction held and buyers were scarce, with the exception of a few on the market to participate in the range sale. This week there was an inactive market, and prices were not high; in fact, prices were on such a basis that it was impossible to make money. The eastern states were not in the market for horses this week, and as a result they did not show much activity, and only took a few chunks and drafters on the extra good quality kinds. Southern buyers were practically out of the market, and very few animals went in that direction.

MULES—Buyers were scarce, as usual, and the general situation was rather slow. Sellers claim the mule market is in a very poor condition. Nothing that has not got the quality will find sale on the market, and only a few of these on the miners and big mule type will sell at sales satisfactory to shippers, and these must be gotten with a certain degree of judgment in the country.

HOW TO HAVE A GOOD RURAL SCHOOL.

Everyone in the district has his or her little part in the work of the school. For the success of the school does not depend upon the teacher alone. Every father and mother, brother and sister can help to make the school better—even the pride of the community. When all are interested and anxious to help, the school will awaken and give us real service.

There are two sides to successful teaching, the school room side and the community side.

Too often we see the school room side over emphasized at the expense of the community side. It almost would seem that the parents consider their duty ended when they provided a building and the necessary equipment and hired a teacher. In such communities the people have drifted away from the school and except that the children go back and forth each day there is no link between the school and the home. In many schools a glimpse at the register will show that the only people seriously interested are the county superintendent and an occasional mother, at least they are the only visitors.

The rural school teacher, who really appreciates her opportunity, is interested in the birds and bees, the crops and the stock. Arithmetic, as taught by her, may make it necessary for each pupil to know the number of acres of oats raised at home, the yield and the present market price. She will be teaching more than the text book. And if, on a rainy day one of the farmers and fathers of the district should stop at the school for a half hour he may be invited to return on the next Friday evening to tell the children and his neighbors how he produced his fine field of corn or the reason for his success in growing alfalfa. The county superintendent, or perhaps the county representative or agricultural teacher from a neighboring high school, likely will be invited to talk at the next meeting.

Even plans may be made for a school fair to which the children will bring samples of corn, cabbage, beets and grain to be judged by some visitor. At that time a program by the school or community will be given. Later in the winter a basket social may be planned and the proceeds used to provide a Babcock tester.

Is your school of this type, or does it exist only within the school building? Perhaps your help would start your school in the right direction. Such schools are a force in the community. Why? Because each one is doing his or her part. The fundamentals for which the school stands are taught through their relation to the community and the home and not from books alone. The parents visit the school and this of course, is a great help to the teacher. The school is a success because pupils, parents and teacher are working together. It is a community school.—John A. James, Wisconsin.

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Horticulture

SUGGESTIONS ON SELLING THE APPLE CROP.

According to the office of markets, Department of Agriculture, present indications are that the commercial apple crop of the United States is much larger this year than last, but less than that of 1912 by several million barrels. However, it is estimated in the current number of the Agricultural Outlook of the department that the problem of distribution will prove to be more complex than two years ago, owing to certain conditions resulting from the European war.

Attention is called to the small quantity of American apples—less than 2,000,000 barrels—taken by Europe in normal times. Both the growers and dealers are urged to view the situation with optimism and to prepare for the disposal of Europe's usual portion in other ways. It is suggested that with judicious handling the demand at home may be increased and the commercial crop marketed with relatively fair success to all. As to just what constitutes judicious handling, the office of markets makes the following suggestions:

1. Growers should pick the fruit in uniform condition, cleaning the trees only for what is ready to come off, repeating the process until the crop is harvested. The advantage is to secure a longer time for distribution and to prevent the pack from representing extreme stages of maturity ranging from ripe to green.

2. When picked the fruit should be handled from orchard to cars in such a way as to prevent deterioration, care being exercised to protect the apples from the elements. It is explained that under proper conditions fruit which is picked today should not be packed until tomorrow and that for this purpose shelter should be provided.

3. Those using the barrel package should uniformly grade and pack the crop in compliance with the Sulzer law and brand in accordance with its provisions, for the purpose of creating a feeling of confidence among dealers and consumers.

4. Inferior grades should be eliminated from the green fruit markets, not only for the reason that the demand for such grades will be very limited, but also because their presence in the markets will undoubtedly hamper profitable disposition of the better fruit.

5. All apple growers, operators, dealers and associations should early arrive at an estimate of true values in order to secure a quick movement. It is explained that if arbitrarily high prices rule in the beginning of the season, the crop will not pass readily into consumption, but that on the other hand, abnormal accumulation and congestion will occur throughout the channels of trade, with disastrous results to all concerned.

6. Only standard varieties well packed should be placed in cold storage for the reason that prices likely to rule in the fall and early winter, as the inevitable result of liberal offerings of common storage stock, will probably limit the demand for cold storage apples until midwinter.

7. An effort should be made to fully supply small towns by direct sales in order to secure a more uniform distribution and avoid congesting the large markets. Attention is called to the practice in some sections of growers who go with cars of apples to poorly supplied towns and sell on the track. Growers or dealers who desire to use this system should apply to the town and railway authorities for information as to regulations controlling such sales, and, of conditions justifying shipping, the arrival of the car should be preceded by judicious advertising.

8. Growers who live in communities where co-operative organizations are operated should do all possible to strengthen these exchanges. It is asserted that the disloyalty of members is the chief element of failure in co-operative enterprises, and growers are strongly urged to support their asso-

ciation as the best way to effect satisfactory distribution.

Those who grade, pack and brand their barrels in accordance with provisions of the Sulzer law should be more successful in making quick and satisfactory sales than otherwise. When apples are packed in a standard barrel as established by section 1 of the Sulzer law, and are plainly and conspicuously marked as containing one barrel of apples of one of the standard grades described in section 2, such a statement if true, would constitute a satisfactory compliance with the net weight amendment to the food and drugs act. Otherwise the package, if intended for interstate commerce, must be marked to comply with the net weight amendment to show the quantity of the contents, either by weight or by dry measure or by numerical count. A statement of numerical count must be qualified by the size of the apples expressed as the average diameter in inches to be a statement of quantity.

The Apple and the War.

With respect to Europe, the office of markets urges exporters to carefully watch the movement and assure themselves of steamer space and a demand on the other side before making shipments. Latest announcements of steamship companies are to the effect that fairly regular schedules will be maintained between America and the United Kingdom.

American apple shippers are advised to stimulate the demand and increase their shipments to Latin America and the Orient. It is suggested that by co-operating with the department of Commerce, extension of trade in this respect can be accomplished. Inquiries relating to these countries should be addressed to the Bureau of Foreign and Domestic Commerce, Washington, D. C. Shippers are urged to apply to the superintendent of Documents, for the following publications, issued by that bureau, which may be secured at the prices shown: Special Agents' Series, No. 62, 30 cents; No. 72, 10 cents, and No. 81, 25 cents; Special Consular Reports, No. 62, 10 cents, and Tariff series, No. 19a, 5 cents. Remittances should be in cash or by money order. Stamps are not accepted. Attention is called to an announcement of the Department of Commerce that it will aid in every practicable way.

For the benefit of those who may not be disposed to exercise special care in handling the crop, on the grounds that it will not be worth while, the office of markets suggests it as probably being true of this year that not only proper handling but also great diligence will be required for effecting satisfactory distribution.

CRANBERRY PICKING MACHINERY

Ever since the beginning of the cranberry industry about 60 years ago, growers have had a great problem to deal with—that of harvesting their crops. A countless number of small devices have been originated, but nearly all of them have not done the work wholly satisfactorily. As cranberries grow on short, slender vines not more than four to five inches above the surface of the ground, it is an extremely difficult feat to gather them.

For many years the cultivators on Cape Cod, where the cranberry industry originated, were content with picking their fruit by hand. This is a very slow process, the berries being very small. Today it is necessary to pick the production from the young vines by hand, as the plants are tender, and small shoots run out in every direction.

Devices have been invented and tried, but up to the present time, there are but two contrivances that do their work with any degree of success. They are the pickers known as the "snap" machines and the wooden "scoops," or "tip-ups."

The former work on the principle of a jaw, which opens and closes as it is jammed into the vines by the operator. The scoops are small box-like receptacles having wooden teeth extending out from their bottoms. They rake the berries from the vines with a rocking motion, and then must be dumped.

Joseph B. Atkins, a Cape Cod grower who has a large bog, has studied

over the picking question for many years. Last fall he took a few pieces of iron pipe, a strip of board and a few nails, went out onto his bog day after day, and finally hit upon an original idea. During the past winter he has worked out his idea and now has what he believes will practically solve the great problem of picking cranberries rapidly.

The device runs on wheels, while all other contrivances ever seen have merely been pushed over the ground. It acts much the same as a lawnmower—long teeth rake out the berries on the plan of a cotton-gin sorting seeds, then a roller pushes them up a gradual incline, where they fall off into a removable bushel box resting upon small swivel wheel.

A harvester that came very near being a success was built and put on the market about 20 years ago by James M. Moody, who picked a barrel of berries with it in 10 minutes. Nothing has since been found that would do this. But Mr. Moody was obliged to discontinue its manufacture and sale, owing to the fact that the inventor of the small "snap" machine claimed it was an infringement upon his idea. Many were built and sold, however, and gave good satisfaction.—Robert H. Cahoon in Farm and Home.

ORCHARD AND GARDEN NOTES.

Some of the double portulacas have been very showy this summer. Try a few as a border plant next year.

When digging gladioli bulbs, save the small bulbets for future planting. In time these will make flowering bulbs.

Gladioli should be cut when the flowers first begin to open, as the flowers will last longer and the bulb will develop better.

Have plans been made for better plantings around the home next spring? Now is the time to study these things and decide what plants to use.

Cut off and burn the foliage of the asparagus as soon as it has been killed by frost. This will destroy many insects and plant diseases.

The common, old-fashioned petunia is very attractive and can be used to advantage almost anywhere in the garden, in shrubberies, and in beds.

The seed of many of our berry shrubs, such as buckthorn, sandthorn, and highbush cranberry, may be stratified in sand over winter and planted next spring.

Bulletin 90, of the United States Department of Agriculture, Washington, D. C., entitled "The Rose Aphid," gives some interesting information about this pest. The bulletin may be had free by addressing the Department of Agriculture, Washington, D. C.

The National Cash Register company, of Dayton, Ohio, found it cheaper to furnish the boys of the neighborhood with land and interest them in gardens than to replace the glass of broken factory windows and repair

other damage. Perhaps some of our so-called bad boys could have their energies directed along good lines, to the advantage of both the community and themselves. Gardens and wood-working machines are worth while in any community.

It will soon be time to take in celery for winter storage. Plant tulips for spring flowering. They should be set about four inches deep.

Black walnuts, butternuts, etc., should be planted or stratified as soon as ripe. Once they become dry they seldom germinate.

The common, old-fashioned zinnia has been one of the best flowering annual plants this season. It comes into flower early and will remain in bloom until killed by frost.

As soon as frost cuts the tops of cannas or dahlias, lift the plants, remove all but five or six inches of the top. Let the roots dry a few hours and store in a room of even temperature. It should not be too warm or dry. The bulbs should not shrivel or be moist enough to start into growth.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul, Minn.

FENCE POST PRESERVING DEMONSTRATION.

The State Forestry Department of Colorado, under the direction of the state forester, is preparing to conduct demonstrations in the preservative treatment of fence posts, at the various fairs now being held throughout the state. Two outfits, each consisting of a sheet-iron tank 30 inches deep, and a portable fire box for heating the same, have been constructed for this work. Each outfit will be in charge of a man who will carry on the actual work of treating a lot of fence posts with gas tar creosote so that farmers and other interested persons who attend these fairs may learn a simple and practicable way of prolonging the life of post timbers. After treating the posts they will be given away to any one interested in trying them out along side the ordinary untreated post. While not all the fairs throughout the state can be reached by these demonstrators, as many as possible will be visited during the next four or five weeks.—B. O. Longyear, Colorado Agricultural College.



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PIA CAMPAIGN AGAINST HOG CHOLERA.

Close Co-operation Between Federal and State Authorities in 15 States to Limit Devastations of This Dangerous Disease.

Under the recently passed act of congress which grants \$500,000 to combat hog cholera, the United States Department of Agriculture's agents will co-operate closely with the state authorities to prevent and eradicate the disease by the use of anti hog-cholera serum and quarantine methods. Approximately \$20,000 will be spent during the coming year in each experimental area selected. Thirteen of the counties, where the work is to be carried on, have been picked out, and in 12 of these the work has already been started. Two other counties are to be selected within a short time. The 12 counties selected for the present campaign, where the work has actually been begun are as follows:

Idaho, Twin Falls District county; Illinois, Kankakee county; Indiana, Montgomery county; Iowa, Dallas county; Kansas, Marshall county; Kentucky, Henderson county; Michigan, Branch county; Minnesota, Renneville county; Missouri, Pettis county; Nebraska, Gage and Johnson (part of each) counties; Ohio, Allen (and adjacent townships) county; Tennessee, Maury county.

The thirteenth county where the work will soon be inaugurated is DeKalb county in Georgia.

Appropriations will be spent in making surveys, using serum on hogs on infected and exposed farms, in sanitation and quarantine work and in organizing farmers to co-operate with the state and federal authorities. In addition, funds will be used for the production by the department of anti hog-cholera serum and for the inspection and proper control of serum prepared by private and other agencies.

Extensive demonstration and educational work also will be undertaken in territory outside of experimental areas to acquaint farmers with the results of the experiments and to supply them with information as to the methods of controlling the disease.

Methods of Procedure.

The method of procedure in the actual areas where the demonstration work will be conducted are as follows:

1. Education — Assemblages of farmers to be arranged in each school district of each experimental area. The objects sought and methods of procedure will be explained and full information given regarding the nature, cause and prevention of hog cholera. Further educational work to be carried on through the distribution of publications and through personal interviews with farmers.

2. Organization of Farmers—This organization will be made up as follows:

A leader for each township and nine associates will be selected. Each associate will have assigned to him an area of about four sections for survey. The men in this organization will serve as volunteers without salary, and they will keep the United States inspector in charge advised concerning the conditions in the county and will also aid in securing the required statistics of the hog industry.

3. Survey—A complete survey will be made to determine the number of hogs raised and the number lost from hog cholera prior to beginning the work and during each year thereafter during the life of the project.

4. Sanitation and Quarantine—This will comprise the regulation of shipment of hogs into and out of the experimental area, the regulation of shipments within the area, the quarantine of infected places, destruction of dead animals, cleaning and disinfection of railroad chutes, pens and loading places, etc.

5. Immunization and Treatment With Anti Hog-Cholera Serum—Serum to be applied to hogs on infected farms and on exposed farms by the

United States inspectors in such manner as they may deem necessary.

6. Serum Production—All anti hog-cholera serum required is to be produced and supplied by the Bureau of Animal Industry, provided that in the event of the inability of that bureau to produce sufficient serum the several states will supply the deficiency in so far as possible without cost to the United States Department of Agriculture.

Organization and Co-operation.

1. State Organization—The state agricultural college, or other state agencies, will place in each experimental area at least one qualified man who, with the co-operation of the United States inspectors, and county advisors, will carry out the necessary educational work, organization of farmers, and make an accurate survey of the area.

The live stock sanitary board, or other proper state authorities, will place in each area at least one qualified deputy who will enforce, in so far as state laws will permit, such sanitary and quarantine measures as may be deemed necessary by the United States Department of Agriculture.

2. Volunteer Organization—To be composed of farmers residing in the experimental area and to be selected jointly by the United States field inspectors in charge and representatives of the state college.

United States Department of Agriculture Organization.

1. Field Forces—One supervising field inspector. The functions of this officer will be to visit the various experimental areas, to advise with the United States inspectors in charge of field work regarding the methods of work, thus giving to each inspector the benefit of observations made in other areas and thereby increasing efficiency.

2. A force located in each experimental area will be maintained as an independent unit reporting directly to the chief of the Bureau of Animal Industry. The force to be maintained in each area will consist of one inspector in charge, one or more assistant inspectors and one clerk. The size of the organization in each area will be governed by the necessities of the case and the funds available.

3. Laboratory Force—One inspector in charge, with the necessary scientific assistants, clerks and laborers to prepare sufficient anti hog-cholera serum to supply the needs of the various field inspectors.

Co-operation and Organization.

The United States field inspector in charge in each experimental area is to be recognized as the local leader of the project. This official, by conference with the local state representatives, will arrange for the details of carrying out educational work, quarantine and sanitation, and other activities. State officers shall at all times be furnished with full information concerning the general progress of the work and the United States field inspector in charge shall likewise be advised concerning the general progress of the work and results of work carried on by the local state officers.

The salaries and expenses of employees of the United States Department of Agriculture will be borne entirely by that department, and similar expenses of state officers will be paid by state or local agencies.

Contracts or Agreements.

No contract or agreement in connection with this work will be regarded as binding upon either the state or the Department of Agriculture unless made in accordance with the principles laid down under the heading "Organization and Co-operation."

Regulation For Preparation, Sale, and Importation of Serums and Similar Products For Use With Domestic Animals.

The department under the appropriation act for the fiscal year ending June 30, 1914, was given power to regulate the preparation, sale, and importation of viruses, serums, toxins and similar products intended for the treatment of domestic animals. The hog-cholera act provides that not less than \$50,000 of the total may be used in this work.

The purpose of the work is to protect farmers from serums that are

either dangerous, under strength, or ineffective.

The general method of procedure will be to inspect establishments which do an interstate business in serums, toxins, etc., and to issue a license to those that comply with the regulations. In addition the department will take samples and test serums in interstate commerce and recommend revocation of licenses or prosecutions where the facts warrant. In the case of imported serums, admission will be refused any serum which is found to be dangerous or spurious.

The Shepherd

THE AMERICAN MERINO IN SOUTH AFRICA.

It's about time to bust out and defend the American Merino in South Africa. No use answering Australian criticism, for the breeders there are adamant. The American Merino, especially the Vermonter, was exiled from Australia years ago (although his mark was indelibly printed on hundreds of the best flocks there). The South Africans, however, are open-minded, for they need the best Merino blood they can find. The Australian Merino has attained lofty eminence. The standard set by the Australian breeder was high. No one but an ass will deny that Australia has more high class Merinos than any other country in the world, but the Australians are not sending their best sheep to South Africa. While some splendid Australian Merino are finding their way into the Boer studs there is plenty of mediocre stock that will not stand comparison with our best shipments to that country—shipments made by Cook & Gamber and others. Much of the harsh criticism against American Merinos in South Africa is unwarranted—absolutely unwarranted. We have sent over to that country some of our best Merino and Rambouillet blood—sheep that can stand in the breeding and show ring with the best stuff in any country. We would be unpatriotic and derelict in our duty to American Merino husbandry did we not protest against this unwarranted criticism of American sheep in South Africa. To shut our eyes and hermetically seal our mouths to the South African situation would be cowardly. Isn't it about time our breeders were taking up the cudgels in defense of their best stock that has gone to South Africa the last few years?—American Sheep Breeder.

SHEEP KILL A RATTLESNAKE.

That sheep should face a dangerous foe even for a minute seems unlikely; that they should attack and destroy one is almost incredible. Yet such a thing sometimes happens, according to the testimony of James Heath, who is a farmer in western Virginia.

He relates that one summer morning he started out to salt a small flock of sheep that he had recently put into a steep overgrown field some distance from his home. On reaching the pasture he called for some time, but seeing or hearing nothing of the sheep, he walked down toward the middle of the inclosure, and mounted a tall stump at the edge of a briar patch.

From this point of vantage he could see the flock on a piece of level ground 50 yards below. The first glance showed him that something unusual was taking place. The sheep were crowded into a swaying, excited circle some 20 feet in diameter.

They slowly moved round and round for a minute or two, and then stood in a tense, watchful attitude, their eyes fixed on a little briar clump that was in the center of the circle. Now and again they cut the ground with their forefeet, and gave every evidence of anger and excitement.

Then they began to circle about again. He could see no cause for their agitation, nor could he distract their attention by calling.

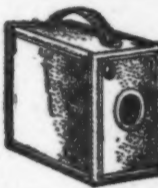
Presently, while the sheep were standing still, a big wether made a lightning spring, landing with his feet together in the very center of the ring, and bounced away again like a

PLANE CHINAS Spring Pigs & Bred Gifts of the biggest type & highest quality. Also Angus Chins. E. F. Vissering, Box 9, Alton, Ill.

THE ART AND Etiquette of Courtship.



This is a new book, just published, and contains numerous hints and suggestions that will be found of the utmost value to persons of both sexes contemplating matrimony. The plan and scope of the work will be best understood if we quote the titles of some of the chapters, as follows: "Courtship Made Easy," "How to Know that you are Really in Love," "How to Begin a Courtship," "Courtship of a Young Girl with whom you are not personally Acquainted," "Courtship when the Parties are Acquainted," "Courtship of a War-wounded Girl," "Courtship of a Proud Young Lady," "How to Court a Bachelor Girl," "How to Woo a Bachelor," "How to Woo a Widow," "How a Lady should Manage her Best to Make Him Propose Marriage," "How to catch a Rich Bachelor," "General Rules to be Observed in Conducting a Courtship," "How to Propose," "How to Make Your Fellow Love You," "How to Make Your Girl Love You," "What to do Before and After the Wedding," "Many other things that all lovers should know. Large book with colored covers, sample copy for mail only 10 cents. Send all orders to MASON SUPPLY HOUSE, Dept. C 41, Springfield, Ohio.



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great rubber ball. In a flash another followed his lead, and another, until all had leaped on the same spot. Then away they swept down the hill.

Stepping down from his perch, Heath made his way to the scene of the strange performance. By the side of the trampled briar clump lay the mangled remains of a fair-sized rattlesnake.—Youth's Companion.

THE WESTERN MUTTON SUPPLY.

Where are the sheep coming from for next fall's market is already a question that is interesting not only the packer but the feeder in the corn belt. Ranchmen all over the West have cut down their flocks to the minimum and many say that not in 25 years has there been less sheep stock available on the western grazing domain. The western flock owner will tell you that the Washington administration is largely responsible for the general cleaning up for the sheep raisers; that free wool on one hand and the pressure of the settler on the other were not conducive to lucrative development of his industry. Many flockmasters liquidated entirely and others cut their holdings from 30 to 50 per cent. On the whole the sheep population west of the Missouri is remarkably small and the spring lamb crop the lightest in years. Conditions have been decidedly against the big sheep raisers for some time and indications are that they will be worse instead of better. A big sheep man in Montana who was at the Chicago Stock Yards recently declared that not more than half as many sheep will be available in the Northwest next fall as a year ago. This will certainly mean better prices for those who are fortunate enough to own some, but it will also mean that the feeder buyer will have to pay lofty prices for what he needs. Eventually the consumer will have to settle the bill. This condition ought to stimulate the farmer in the corn belt to raise more sheep, for there is nothing that he can produce that will benefit his farm more and yield a greater percentage of profit on the investment.

The Australian commissioner at San Francisco is enthusiastic over the plans for sheep dog trials on the big polo grounds. He guarantees the entrance of some of the noted prize winners in Australia. "Jimmy" McLay and George Cavan are lying awake nights working out big things for this occasion. They say it will be a perfectly ripping time for the English and Scotch visitors, and especially interesting to the Yankee shepherds who have never seen a genuine field test.

Colman's Rural World

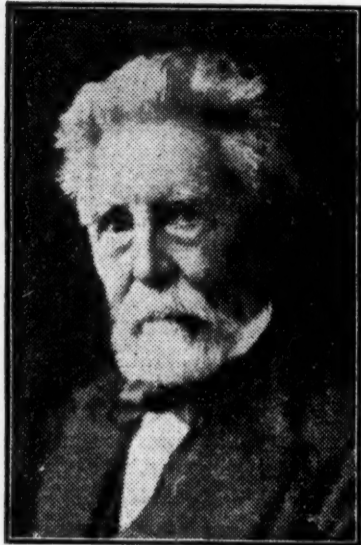
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Norman J. Colman,
First U. S. Secretary of Agriculture.

COLMAN'S RURAL WORLD was established in 1848 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a clarion of advanced agriculture this journal has attracted nationwide support, and is today held in highest regard by thousands of intelligent and discriminating readers.

COLMAN'S RURAL WORLD strives to bring the greatest good to the greatest number at all times. Each issue is replete with helpfulness and good cheer. It is read for profit and pleasure, and yields a satisfactory return to each individual subscriber. Our advertisers are rewarded with excellent results.

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To the bumper crop farmer, the skilled agriculturist, so to speak, plowing is merely the rough work of getting ready to plant. He puts the finishing touches on with other machines just as the sandpaper follows the plane in finishing woodwork.

Fall touring is exceedingly popular reports the American Automobile Association Bureau which serves the entire country, for at this time of year the trunk roads are in as good or better condition than in any other season, particularly as the principal road work in process in the spring and summer is largely completed.

The check to business by European war and the consequent dislocation of the cotton market has had to be met by more or less cutting down and readjusting in the cities. Those who are temporarily thrown out of work should remember that every farm needs labor, and that this need will soon become acute. The European war may—and probably will be over before our cotton crop can be gathered, with a following heavy demand not only for the cotton, but for every other product.

F. H. DeMaree, acting agronomist at the Missouri Agricultural Experiment Station, says: "In my opinion, and that of everybody connected with the crop and soil work of this institution, the disk harrow is one of the best im-

plements which can be used on any farm. In early-plowed land and in fall-plowed land, there is generally a crust, and many clods form before corn-planting time. One of the best implements which we have found so far for pulverizing these is the disk harrow. On sod land it is nearly impossible to make a good seed bed without the use of the disk."

ECONOMIC RESOURCES OF THE UNITED STATES.

A partial inventory of the national assets of the United States in area, population, and the fundamental factors of economic life reveals the fact that it is not only practically self-supporting, but that it possesses in many lines a large surplus available for protection against famine and temporary adversity or for use in meeting unusual demands from the outside world. Recently the bureau of foreign and domestic commerce, department of commerce, has been receiving hundreds of letters from American producers and manufacturers making inquiries regarding possible markets abroad for their surplus products and as to the ability of the United States to supply the raw materials necessary to their industries. Investigations in connection with the replies to these inquiries have developed the fact that in many instances materials now imported from abroad are of a class found in this country, the production of which, however, is still in the initial stages. This is particularly true of numerous basic materials used in the chemical industries, which were formerly wasted, but are now partially utilized.

The peculiarly fortunate position of the United States in its ability to supply its own needs is clearly seen from a survey of its production and relative contributions to the world of the great requirements of man—food, clothing, and shelter. It is found, for example, that the people of the United States may be fed readily by home-produced foodstuffs, our vast area of 3.2-3 million square miles representing every variety of climate and production and being nearly equal in extent to all Europe which has a population five times that of this country. Agriculture in the United States has not yet reached the stage of scientific development common to many countries of Europe, and present domestic production may therefore be expected to increase greatly with more attention to improved methods of culture. Nevertheless our country already produces over 2½ billion bushels of corn, or two-thirds of the world supply. This year's wheat crop is estimated at the high-record figure of 911 million bushels, about 20 per cent of the world harvest. The United States also produces annually over one billion bushels of oats, or one-fourth of the international yield, and 197 million gallons of cottonseed oil, representing most of the annual output of this article whose food value as a substitute for olive oil is becoming more and more recognized. Fifteen per cent of the world's cattle are on American farms, the number in this country being 59 million, or twice as many as in Argentina or European Russia and half the number in India. Our country also has 60 million swine, 50 million sheep, and 24 million horses. We import, however, 5 billion pounds of sugar (chiefly Cuban), or 1½ times the amount produced in continental United States and its island territories.

In clothing material the United States is also favored, producing annually over 14 million bales of cotton, representing over one-half of the world's supply. Of wool we produce 300 million pounds a year, our home requirements being supplemented by 238 million pounds of foreign wool and 34 million dollars' worth of woolen goods.

In the mineral kingdom the pre-eminent position of the United States is unquestioned. We produce, for example, 534 million short tons of coal, 40 per cent of the world's output; 238 million barrels of petroleum, two-thirds of the world's total; and 57 million tons of iron ore, out of a world total of 132 million. One-half of the world's copper is taken from American mines, which turned out 1¼ million pounds in 1912. Of the world's output of 466 million dollars' worth of

gold, the United States produced about 20 per cent, being exceeded only by South Africa. About 28 per cent of the world's silver and 300 per cent of its lead are produced in this country. In the value of manufactures the United States leads the world, though the product of American factories is chiefly consumed at home. Of the 20.7 million dollars' worth of manufactures produced in the United States in 1909, only about 5 per cent were sold to foreign countries, the world market for iron and steel products, cotton goods, chemicals and other important products of industry being thus far largely held by England, Germany, and other European nations.

PREPARATION OF EXHIBITS.

A large number of people who send agricultural exhibits to the fairs are disappointed each year because their particular entries fail to take prizes.

It often happens that the products exhibited in such cases average larger in size than those which receive the ribbons, and the exhibitor cannot understand why he is discriminated against. The trouble in many such instances is that the exhibitor has staked all his hopes on size alone, with little regard for other points.

Size is important, but a turnip a foot long in diameter is not desirable for table use. Such turnips were recently exhibited at one of the county fairs. A plate of apples containing four specimens of medium size and one extra large specimen will be thrown out almost invariably. Size is important but uniformity of both size and shape is even more so.

The stage of maturity is another point of importance, particularly with small grains, onions, tomatoes, etc.

Products should all be as well ripened as possible. Grains in the sheaf will be likely to be discarded unless thoroughly mature.

One would think it almost useless to advise the exhibitor to be sure his entries are true to type, but it is a fact that at almost every fair, a judge will find apples entered as Jonathans which are not Jonathans at all but some other variety. Such entries will not be considered in awarding prizes.

Another very important consideration is freedom from blemishes of any kind. Many exhibits are disqualified because of bruises, worm holes or rotten spots.

When the products have been selected, the next thing is to prepare them for exhibition. The judge will always be considerably influenced by the appearance of the individual entries or by the exhibit as a whole, so that if the exhibitor is after prizes, he must pay a good deal of attention to this point.

The products should be put up in as attractive a form as possible. Potatoes, carrots, beets, etc., and should be washed. Sheaves of grain should have ends of the stalks even and should be neatly tied. Plates of fruit should contain the proper number of specimens. Apples should not be polished by rubbing with a cloth, as this removes the "bloom."

Finally in handling the products to be exhibited, use the greatest care to keep from bruising them. The bruise may not show up at once, but will appear after the specimens have been entered. It is often necessary or advisable to wrap them in paper to avoid injury.

SILLO AND SILAGE SUGGESTIONS.

With the prospect for feed prices being high for the coming year, every effort should be made to secure the corn crop in the best possible manner.

Farmers having silos are most fortunate in that they will be relieved from the difficulty of shocking corn that has been badly twisted and broken down by wind storms and in being able to store the corn crop where it can be most conveniently and economically utilized. The silo makes it comparatively easy for the farmer to secure his corn crop in the best possible manner.

There are, however, a few rules which should be carefully observed. Here are some of the most important: Do not be in too great a hurry to cut the corn. When more nearly matured

the stalks contain a greater amount of feed.

Begin cutting when a majority of the ears are nicely glazed and the crop is ordinarily about ready to be put into the shock. Only when corn is hurt by frost or badly burned by drought should it be cut sooner for silage. Otherwise, it is better to let it become over ripe and add water while it is being run into the silo than to cut it before it has ripened sufficiently. Where it is necessary to add water it can be done conveniently by running it, by means of an inch pipe, into the blower, or into the carrier during the time of filling.

Properly distribute and thoroughly tramp the cut corn as it is run into the silo. The surface of the corn in the silo during the process of filling should be kept slightly higher and most thoroughly tramped at the edges where the friction of the wall tends to prevent its settling as fast as it settles in the center. This practice makes the silage of uniform character, tends to insure against loss by mold and also insures a greater amount of corn being put into the silo. For a week after the silo has been filled, the surface should be thoroughly tramped at sufficient intervals to keep it well packed which will prevent loss from the top of the silo when it is opened.

Until the heating and fermentation of the silage is over, the silo should be well ventilated.

Cutting stalks in one-half inch lengths insures the greatest amount of silage being eaten by cows as they otherwise refuse and waste the coarser portion of the stalks.

What Our Readers Think and Do

THROUGH CENTRAL ILLINOIS.

Editor, Rural World:—We have been having fine rains. Never was ground in better condition for fall seeding, as it takes but little work to make a good seed bed. The two years drouth has killed nearly all tame grasses in both meadows and pastures; therefore, there will be lots of new meadows sown this fall and lots of re-seeding of pastures.

All crops, with the exception of wheat, were an entire failure here, or nearly so. Most all our feed stuffs will have to be brought in from other sections.

A short time ago I took a trip of 175 miles north, up through the central part of the state, just to see how crops looked and what was the prospect for us poor fellows down here in Egypt to get a living this coming winter. En route I passed through seven counties, stopping off in McLean, which is in the center of the corn belt. Here I was told the corn would make from 50 to 70 bushels per acre without any more rain. Oats were threshing from 40 to 65 bushels per acre.

In McLean county and throughout the corn belt of Illinois is one of God's chosen sections of this country. There never was an entire failure of crops there. While crops are sometimes a little short they always have plenty to do them and some to sell. Here I thought what a contrast in the two sections of the state. In the northern part was drouth and devastation of crops. Here in the central part, although not a full crop, was plenty for all. I felt as though I wished to remain.

Although this may be God's chosen country, it seems he has his chosen people in the center of it. Here land values range from \$225 to \$325 per acre. One farmer sold his farm of 80 acres for \$24,000. After spending a few days there with a friend who took me out through the country in his motor car, showing me the crops and giving me information, I purchased two car loads of fine clover hay.

On my way back, I stopped over at Mt. Zion, in Macon county. While there I purchased two car loads of nice wheat straw. In Macon county they had the same dry weather we had in Marion; but their soil being deeper and stronger, resisted the dry

weather further crops a good wheat per acre low as route of they have I lead plenty if right scarce a too high small in Chr in McL traly, MISSO

Editor's activity 10, prom forts. evidence One of of succ a count of Prof He has erating, by som recent they an week.

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Editor preparin wheat t over in others ti with the good cro know of on 14 a wheat v very th with 100 and sow before th up until looked i spring, brought best whe Some and did under ab doing fin for whee made a and upl Potatoes failure.

It will chickens and-miss dwindle, show for time spe might ha egg bask and runs brood fro fine them till the d dragged

weather better than our light soils further south. Here the hay and oat crops were short, but corn will make a good half crop. Some fields of wheat made as much as 55 bushels per acre while other fields went as low as 30 bushels. All the way en route one could see that the few rains they had went in streaks.

I learned by this trip that there is plenty of food for both man and beast, if rightly distributed, and the war scare and speculators do not put it too high in price for us fellows with a small purse. I also noticed from Pana in Christian county to Bloomington in McLean county there will be plenty of corn.—Geo. O. Wilson, Centralia, Ill.

MISSOURI GRANGES FLOURISH.

Editor, Rural World:—Grange activity "Booster Week," October 5 to 10, promises to surpass all former efforts. From many sources comes evidence of good work being done. One of the events which gives promise of success, will be the organizing of a county grange under the leadership of Prof. S. B. Sipple of Adair county. He has already five granges co-operating, and the splendid work done by some of the drill teams at their recent field meeting, is evidence that they are to have a very successful week.

Nor is the work confined to Adair, for Johnson, under the leadership of Prof. C. M. Long, is producing results that in a short time will surprise the most skeptical. Lewis county, under the leadership of Jas. T. Phillips, will hold a successful meeting at Deer Ridge on Saturday, October 3rd. Scotland and Cass, under the leadership of R. P. Reed and S. P. Flemming, will hold successful meetings on October 3rd.

A letter just received from National Secretary Geo. W. F. Gaunt, Mullica Hill N. J., telling of his recent visit to the grange field meetings, speaks in the highest terms of the zeal and enthusiasm of the members of our order and says that a "bright future is in store for those who have toiled so long in building the grange in Missouri." The work of the local grange is of such a nature that no community can afford to let the opportunity pass without some effort being made to have a local chapter established. Let every farmer see that he has a live organization in his community.—C. O. Raine, Master, Missouri State Grange, Canton, Mo.

SOWING WHEAT FOR EUROPE.

Editor, Rural World:—Farmers are preparing to put in a big crop of wheat to feed the Christian sinners over in Europe who are cutting each others throats and fertilizing the soil with their blood. Wheat was a very good crop this year, the best yield I know of being 18 bushels per acre on 14 acres. The land for this wheat was creek bottom and was very thoroughly prepared, fertilized with 100 pounds bone meal per acre and sowed the middle of October just before the big snow. It did not come up until after the snow went off and looked rather weak all winter and spring, but the good preparation brought it to time and it made the best wheat around here.

Some oats that we sowed in April and did not cut, and which we disked under about a month ago are up and doing fine. We will plow them under for wheat. Corn on low, wet land made a good crop, but on dry land and upland did practically nothing. Potatoes and most garden stuff are a failure.—R. C. Worth, Light, Mo.

FALL CHICKENS.

It will not pay to try to grow fall chickens if you let them lead a hit-and-miss existence, for they will dwindle, and you will have little to show for the eggs you set and the time spent by the hen, when she might have been helping to fill the egg basket. Unless you provide coops and runs to shelter the hen and her brood from the weather and to confine them at least in the mornings until the dew is off, the chicks will be dragged to death or chilled to death.

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THERE are a thousand uses for this instrument in every home and on every farm or ranch. You can see what your neighbors are doing who live miles away from you. It will bring the remotest part of your farm to your door. You can tell who is in a carriage long before they reach you. You can view and count stock on distant parts of your farm or ranch.



POSITIVELY such a good telescope was never offered in such a liberal manner before. These telescopes are made by one of the largest manufacturers of Europe; measure closed, 12 inches, and open over 3½ feet in five sections. They are brass bound, brass safety cap on each end to exclude dust, etc., with powerful lenses, scientifically ground and adjusted. Guaranteed by the maker. Everyone living in the country should have one of these instruments. Objects miles away are brought to view with astonishing clearness.

Used as a microscope it is found of infinite value in discovering microbes and germs in plants, and seeds, etc.

Heretofore telescopes of this size with solar eyepiece and multi-focal lenses, have sold for \$8 to \$10, or even more. We do not claim our telescope is as nice and expensive in every particular of construction as a \$10 telescope should be; that would be unreasonable; but it is a positive wonder for the price. Each telescope is provided with 2 interchangeable objective lenses—one for ordinary range and hazy atmosphere, the other for extra long range in clear atmosphere, increasing the power and utility of Telescope about 50 per cent.

Can Count Cattle Nearly 20 Miles Away.

F. S. Patton, Kansas, says: "Can count cattle nearly 20 miles away. Can see large ranch 17 miles east, and can tell colors and count windows in the house."

Saw an Eclipse of Sun.

L. S. Henry, The Saxon, New York, writes: "Your Solar eyepiece is a great thing, I witnessed the eclipse at the Austrian Tyrol when the sun was almost 80 per cent concealed."

Could See Sun Spots.

Rutland, Vt., Feb. 16, 1910.—Telescope arrived O. K. I have seen the spots on the sun for the first time in my life.—Dan C. Safford.

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Home Circle

OPPORTUNITY.

This bit of verse was a favorite of Mrs. Wilson's. The president often read it to her:
 (This I beheld, or dreamed it in a dream:
 There spread a cloud of dust along a plain,
 And underneath the cloud, or in it, raged
 A furious battle, and men yelled, and swords
 Sheathed upon swords and shields. A prince's banner
 Wavered, then staggered backward, hemmed by foes.
 A craven hung along the battle's edge
 And thought: "Had I a sword of keener steel—
 That blue blade that the king's son bears—but this
 Blunt thing!"—he snapped and flung it from his hand
 And, lowering, crept away and left the field.
 Then came the king's son, wounded, sore bestead
 And weaponless, and saw the broken sword,
 Hilt buried in the dry and trodden sand,
 And ran and snatched it, and with battle shout
 Lifted afresh, he hewed the enemy down,
 And saved a great cause that heroic day.

EDWARD ROLLAND SILL.

APPLY NOW FOR A FARMERS' INSTITUTE.

Would you like to have a farmers' institute held in your neighborhood next winter?

If so it will be necessary for you to apply soon for already petitions are being sent in signed by leading farmers and business men who desire to secure one of these meetings.

Any community in any state which did not have an institute last year and which can provide a suitable hall is in line to secure this help. The superintendents of farmers' institutes in each state will supply the necessary blank petitions to residents who apply for them.

Home economics institutes could be held in connection with some of the regular gatherings. A limited number of communities, having suitable halls for such meetings, can secure them by making application at this time. If you have no institute in your neighborhood, get busy and find the way to have one.

AN OLD FRIEND COME BACK.

Dear Home Circle Friends:—It has been so long since I visited the Home Circle that I am almost a stranger. We are not a subscriber to the Rural World now but occasionally I read a copy as my husband's aged father takes it.

Another summer has come and gone, another drouth is broken and now it rains. We have a much better yield of corn than last year. Wheat was fairly good and we have an abundance of late beans and tomatoes, while our early gardens were all scorched with dry winds. We learn during these drouths what can endure the longest, both in vegetables and flowers. We will buy all the potatoes we eat, as a result of dry weather, and my nice dahlia and gladiolus bulbs are long since dead and never a blossom, while my petunias, nasturtiums and some rose cuttings are trying to bloom for them all.

This is the beginning of the school year and with it the good-bye's separations. Our daughter, who on account of bad health has so often given up her music, has taken up the work again. To her the disappointments are a great grief. The boy is with her in the second year high school, while the baby boy is in our home school.

I spent last school year in the city with them all, leaving the farm with my husband, who milked, cooked, churned and brought us nice molds of butter. In some respects it was a very pleasant winter.

I hope to see this in print and am

right here making another resolution that I will subscribe for the dear old Rural World and renew the friendship of the writers whom I seem to know personally, but some of them I fear have lain down their pens forever.

A few days ago I saw a picture that impressed me and my heart aches every time I think of it. It was Christ with a sorrowful look on his face and the ground strewn with dead and wounded men, and underneath was written, "The Broken Commandment—Love One Another."—Mrs. J. A. McGinnis, Christian Co., Mo.

AGRICULTURE IN THE RURAL SCHOOLS.

For books and bulletins containing materials suitable for teaching agriculture and farm life subjects in rural schools, a number of text books have been prepared and can be secured from most any of the large publishers of text books. Many teachers, however, are not yet ready to begin a large book which would take the full year, or even longer, to complete, who would still like to do some work of this kind, if suitable materials could be secured. Most teachers have, as yet, had but little if any opportunity to prepare themselves to teach agriculture, while seventh and eighth grade pupils find the subject difficult.

The following paper-bound booklets contain good materials for these grades and are inexpensive:

Twelve Studies in Agriculture.—Davenport.

Twelve Studies in Farm Animals.—Davenport.

Twelve Studies in Animal Husbandry.—Mumford.

Twelve Studies in Farm Crops.—Shamel.

Eleven Studies in Horticulture.—Blair.

These may be obtained of C. M. Parker, Taylorville, Ill., for 20 cents each. Each twelve lessons are bound together and make about 85 pages.

The first two were used last year in some of the Colorado counties in connection with boys and girls country life clubs and were found well adapted for this purpose.—C. G. Sargent, Colorado Agricultural College.

ELIMINATE THE PANTRY.

"I never make my head save my heels anything," sighed the weary house mother, who after walking 20 feet from the hot kitchen range to the pantry found she had forgotten what she went after.

Who could wonder that she had forgotten? That walk, taken the dozen or more times necessary to prepare a meal, would make any woman forget her name. Coupled, as it is all too often, with a walk of 10 rods for water, it seems wonderful that women remember even how to work.

When one considers the farm houses built before the last five years, it frequently seems as though the men who built them aimed to see exactly how unhandy they could make them for women. Large kitchens, pantries almost half as large, the stove on the farthest side of the kitchen from the pantry, the table away off from the stove and the sink as far as possible from all three, is it any wonder the woman who works in such a place reaches night so tired she can scarcely remove her clothes before tumbling onto the bed exhausted?

No doubt the original builder of the houses thought he was doing a great thing when he gave his wife such a large, light, airy workshop. He never thought of the miles and miles he was making her travel to no purpose. Nowadays we build better. The kitchens are small and compact, so arranged that the worker can stand in one spot and reach table, stove, cupboard, or at best, walk only two or three feet. Kitchen cabinets solve the pantry problem, and if finances rule out the cabinet a home-made one can be built in any kitchen with a few boards, a hammer and nails, and a little determination and inventiveness.

It is of little use to argue with the woman who has been accustomed to her house and is the slave of habit. But the one who is not too "set" to move, could save herself much weariness of flesh and vexation of spirit by

having things built over. When the next rainy spell arrives, coax, cajole or coerce the men of the family to tear out the pantry shelves and cupboards and put them up in the kitchen, along a vacant wall. If the stove is still too distant, have it moved, even if you must buy another length of stovepipe and an "elbow" or two. Move the table to a place convenient to both stove and cupboards, and take life a little easier.

A pantry is not a necessity; it is only an evil invention designed to make more work for women. The room you have denuded of shelves and cupboards you can now use as a washroom or clothes closet, the latter all too scarce in old houses.

Plan to have some way, too, for emptying water without having to carry it outside and down from two to eight steps. A drain can be easily and cheaply made in any kitchen, and an outside trough built to carry the water away from the house. The steps a busy woman takes each day in emptying water might better be utilized in a walk out of doors.

There are countless ways in which all of us could make our "heads save our heels," if we set the heads to work. But we are prone to take things as we find them without looking to see if we can't better them; to do things today as we did them yesterday, when we could make great improvements on the old way if we only tried.

When I was a girl I knew one housekeeper who said she was always looking for the easiest and quickest ways to do things. She found them and waxed fat doing the work for five. There are some like her, but more doing things the hardest way, because they do not make a business of their work. Each housekeeper should study her own situation and, like the business man, work for the elimination of useless movements.—D. M. F.

THE CARE OF LAMPS.

To give the best light, lamps require daily attention. Lamps give a poor light and frequently smell badly, for three reasons: First, dirt in the bowl of the lamp or a clogged burner; secondly, the wick is clogged with dirt and sediment which will not permit a free flow of oil; thirdly, the chimney does not fit the lamp, is either too large or too small for the size of the flame.

The lamps should be filled and cleaned daily. The wick is best trimmed by brushing the charred portion off. It is almost impossible to trim evenly with scissors. In filling the lamp be careful not to fill full. Leave a little space in the bowl to allow for the expansion of the oil as it becomes warm. If completely filled, the heat of the blaze causes the oil to expand and overflows the bowl, resulting in a poor light and a bad odor. The bowl should be emptied occasionally and all sediment removed.

The "pin holes" in the burner should be kept clear of dirt and the entire burner should be subjected to a thorough cleaning once a month, by boiling for a few minutes in sal soda or lye water.

Many times the oil, or the wick, or the burner gets the blame for a poor light or a bad odor when the trouble is in the chimney. The purpose of the chimney is to supply the flame with just the amount of air it needs for perfect combustion. When the chimney is too large for the flame, or when it is too small, the result is the same, poor light and a bad odor. The general idea of a lamp chimney is that any will do that fits the burner and will not easily fall off. The right fit is a chimney that not only fits the burner but permits the maximum amount of air to enter the chimney that the blaze can consume, no more, no less. The shape and height of the chimney should be considered, since these are important in regulating the air draught.

In buying lamp chimneys, if one must buy from general stock, it is well to try chimneys of several shapes and sizes and select the one that gives the best light.

The best and safest lamp to use is the one that has no special opening

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For selling 5 boxes of Smith's Rosebud Soap at 25¢ per box. A great home remedy. Washes, returns the skin to its natural beauty. No money back.

ROSEBUD PERFUME CO. Box 141, Woodboro, Md.

This offer made by old reliable firm established 25 years

for filling. While it may be convenient to have a special opening for refilling, these lamps are dangerous, especially when the care of the lamps is left to the children, as is often done. Not only the children, but the grown-ups as well, are tempted to take advantage of the convenience and fill the lamp when the wick is burning, and thus incur the risk of an explosion. In such lamps the wick is often neglected and the charred portion becomes so deep in the burner that the flame gets dangerously near the oil in the bowl of the lamp, especially when the lamp is filled entirely full. The only safe lamp is the one that compels the housewife to remove the burner before filling.

The ordinary lamps used for lighting purposes should not be used for night lamps. A small lamp should be used for this purpose, one that will emit but a small flame when turned on full. The practice of using ordinary lamps, with the flame turned low in sleeping rooms, should be condemned. Such a flame throws off large quantities of carbon and volatile gases, which fills the atmosphere and enters the lungs of the sleeper.—Olive Richey.

SCHOOLS AND AGRICULTURE IN THE PHILIPPINES.

"If, as in the Philippines, the child in this country were given at school a better breakfast than he could get at home and a big piece of watermelon at recess, there would be no need for truancy officers," said Dr. Henry Jackson Waters, president of the Kansas State Agricultural College, upon his return from the Philippine Islands, where he investigated education and agriculture on behalf of the government.

The largest area of school farms under the American flag is found in the islands, says President Waters, every school in some provinces having an area of from seven to forty acres. The agricultural products are used by the girls in domestic science work, and many of the schools open with breakfast. Watermelon is served at recess, and the pupils take food home to their families. In many cases as much as 40 per cent of the living of families comes from the school farms. Thus the child of school age is regarded as an asset, not a liability.

Baseball and basketball have put the time honored sport of cock-fighting out of business so far as the young people are concerned, Doctor Waters reports.

Live stock farming is attractive to the Filipino, says Doctor Waters, who

predicts great agricultural progress in the islands. Already much has been done by the bureau and the college of agriculture. Farming in the Philippines is regarded by President Waters as a work for orientals. The future of agriculture there is said by him to be in small farms rather than in the great haciendas characteristic of the Spanish occupation of the islands.

SAL SODA IN THE KITCHEN.

Sal soda is one of the articles which should always find a place in the kitchen cupboard among the cleaning agents, either in the form of a solution or in a crystal form.

To make the solution use one pound of sal soda to each quart of water. Put this in a sauce pan, bring to the boiling point, cool and bottle.

A little sal soda added to the water in which dishes are soaked or boiled will remove the strong odors and loosen the grease and particles of food which are burned on the cooking utensils.

When lamp or stove burners become gummy and sticky they should also be boiled in a solution of sal soda. The sal soda is also useful in cleaning sinks but one must remember that it is very caustic and destroys paint and varnish. It is also hard on the skin and on fabrics unless very dilute.

DISINFECTION OF DITCH WATER FOR DRINKING.

Wherever ditch water is used for drinking purposes, its use is always attended with more or less danger from typhoid fever and dysentery. This risk can be considerably reduced by treating the water with hypochlorite of lime or bleaching powder, which can be purchased in one-pound sealed packages from any drug store for about 25 cents per pound. Water in cisterns may be treated as follows:

For 5000 gallons, place one ounce of the bleaching powder (so-called "chlorid of lime") in a vessel containing approximately two gallons of water; stir rapidly for about one minute; allow it to stand for five minutes so that the insoluble part of the lime will settle to the bottom; pour the solution into the cistern containing the ditch water, and by means of a long paddle stir vigorously so as to mix the hypochlorite of lime thoroughly with the water. After 30 minutes, the water may be used.

CAN CRANBERRIES NOW.

If you are looking around for "something to put up for winter" take this reliable market tip—buy cranberries, and buy them now.

Cranberries fresh from the famous Badger bogs are now at their best and more than that they are at their cheapest. Step into the nearest grocery store and look them over, plump, rosy and shining bits of bottled sunshine—and holding in solution nutritive and healthful juices.

You will find the following recipe excellent for preserving them for winter. It is recommended by Mrs. O. G. Maide, wife of the superintendent of the University of Wisconsin Experiment Station cranberry farm at Grand Rapids.

"Always wash the berries well. Pack them, dry, into pint or quart Mason jars, put on the rubbers and covers and seal tightly. Place jars in a pan, kettle or boiler filled with water high enough to reach the necks of the cans, first placing false bottom in the dishes used. After the water boils permit pint cans to remain in the water for half an hour, and the quart cans for three-fourths of an hour. Remove from water and take off the covers and fill cans with hot syrup and re-seal. Set aside in a cool place for at least two weeks before using. The syrup is made the same as ordinary sugar syrup, using one-half pint of sugar for each pint of cranberries. For thinner sauce or more tart flavor reduce the proportion of the sugar."

If your family prefers "cranberry conserve" here is a recipe worth trying: Chop coarsely five pounds of washed cranberries and two pounds of raisins. Add juice of six oranges and five pounds of sugar. Heat and simmer slowly until thick like jam. Put up in jelly glasses.

A REMINISCENCE OF OLD-TIME CHESTNUT GATHERING.

Editor, Rural World:—The cool, delightful days of early autumn are here again, the most enjoyable part of the year to my notion—and this reminds me of those halcyon days of long ago, when in childhood in company with my brothers and sisters we would ramble for hours over mountain and plain in search of chestnuts. The best time to gather the nuts was after a few early frosts in October. After there had been a heavy rain-storm and the weather turned suddenly cold with high wind, was the time for the children to bundle up and explore the mountain slopes for chestnuts, as the wind at such times blew the nuts down after the frost opened the burrs. The weather at chestnut-gathering time was generally cool and pleasant and wonderfully bracing to the human system, so that a person would feel very active and vigorous after the long heated term. September and October often brought long periods of beautiful, hazy, Indian summer days that we all enjoyed so much, but at such times the air was often so calm that we children had to jar the trees by throwing large rocks against them so as to bring the

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Cut in four sizes: 6 months, 1, 2 and 4 years. It requires 2 1/2 yards of 36-inch material for a 4-year size.

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1059-1062. Ladies' Costume.

Waist 1059 is cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1062 is cut in six sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 8 3/4 yards of 40-inch material for a medium size. The skirt measures 1 1/2 yards at the lower edge. This illustration calls for two separate patterns, 10c each.

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MILCH GOATS.

MILCH GOATS. Write George Wickert, 2314 East Central, Wichita, Kansas.

HOW TO HARVEST PEANUTS.

Peanuts are usually ready for digging when the vines turn yellow and the lower leaves begin to fall off, but this is not always the case. It is a good plan to pull up a few hills over the field, and examine the pods to see if they are well filled.

There is a tendency among beginners to dig peanuts before they are mature, but this should be avoided. When the crop is dug too soon the percentage of "pops" or unfilled pods is large and the nuts shrivel up, thus making an inferior product. A few of the early nuts will sometimes sprout long before the main portion of the crop is matured but it is better to sacrifice these than to harvest too early.

When peanuts are grown on a small scale they are sometimes pulled by hand, but this is not a desirable method as most all of the root, with its nitrogen nodules, is removed. The plants should be dug in such a way that a large portion of the root is left in the ground. One of the simplest implements is the common turning plow, with the mold board removed, to prevent covering the plants. If the share is sharp and the plow is properly regulated the root can be cut off at any desired depth. Another simple digger consists of a U-shaped bar of steel attached to a Georgia plow stock. The bar is sharpened on the front edge and four to five iron fingers are attached to the back edge to separate the vines from the soil. This implement can be regulated to cut off the root wherever desired. Probably the best digger is the regular peanut digger which is made on the same principle as the potato digger. The potato digger is satisfactory if the seat bars are made longer and placed farther apart so as to allow the vines to pass over the elevator without clogging. By means of a lever attached to the digging point the machine can be regulated so as to run any depth desired.

Caring and Stacking.

After the peanuts are dug they should be left laying on the ground for a few hours or just long enough to wilt. This will ordinarily require from two to six hours, depending upon the weather conditions. When the vines have wilted they are shaken from the soil and taken up by hand or a fork and piled in a circle around the stacking pole. This circle should be large enough to allow the stacker plenty of room to work. The poles used should be about seven feet long and large enough to support a small stack. Set the poles between the peanut rows and bring five or six rows of peanuts to each stack row. Put the poles in the ground about 15 to 18 inches deep and nail on two cross-pieces 8 to 10 inches from the ground.

These pieces may be any scraps of lumber of 12 to 18 inches in length. Start the stack by dividing a few bunches of peanuts and hanging them over the ends of the cross pieces. This keeps the nuts off the ground and the stack high in the middle, insuring drainage off of the water. The vines are stocked with the nuts to the pole so as to prevent exposure to the weather of the pods and injury by birds. Near the top of the pole the stack is drawn to a point and capped with a bunch of grass or weeds.

In some sections the vines are allowed to cure on the ground and then raked up into piles and stacked in much the same way as cowpea hay is cured. This is a bad practice because the nuts to dry out too quickly, causing them to shrivel, and those on the outside of the stack turn black. For a first class product the nuts must cure slowly and without exposure to the weather. Stacking by hand, as described, is the best method and should be followed when the nuts are intended for market.

Saving Seed Peanuts—It is a good plan to select the seed for the next season's planting at the time the peanuts are dug. Select vines with a large number of well-filled pods, clustered close around the base of the plant. A spreading plant, with pods along the branches, usually has a large percentage of "pops" or poorly filled pods. Stack the seed peanuts separately and pick off the nuts by hand to prevent cracking or breaking of the pods. Store the seed in a dry place, preferably where there is no danger of freezing.

Picking and Threshing.

The peanuts should be allowed to stay in the stack for four or five weeks before being removed from the vines. During this period the nuts are curing slowly and without shriveling or moulding. The hay is also of more value when cured in this way. In removing peanuts from the vines three methods are employed. Hand picking is still followed when a small acreage is grown, but under most conditions a machine should be used. In Virginia a peanut picker (a machine designed especially for this purpose) is most generally used. There are several types of pickers on the market and it is a question of choice as to which one to use. As a rule the type of machine already in use in the community will have to be employed by the club members. The ordinary grain thrasher, with a special cylinder for peanuts, is also used in some sections. Whatever method is used it is important to have the nuts removed with as little breaking of the pods as possible and to have nuts well cleaned.

After removing the nuts from the vines they should be re-cleaned if much dirt and trash is found. Place the nuts in standard peanut bags which hold about four bushels of Spanish nuts. These bags should be clean and uniform in size and shape. Store the peanuts in a dry building away from mice and rats, until ready for market. Do not put the nuts on the market during the rush of the selling season as the price is usually low at that time.

If you will follow these directions carefully you will not only obtain marketable peanuts but will also secure a large quantity of fine hay, rich in protein. In addition to this you will increase the fertility of your soil by leaving in the ground the roots of the peanuts with their nitrogen nodules.

There is abundant opportunity down in Georgia for sheep raising, but according to a well-known government official who has been canvassing the situation "everything is so muddled up with peanut politics that it is most trying." The south isn't the only section where peanut politics affect the sheep industry. There is a powerful lot of peanut politics in the west and more or less of it in the east.

Anna Bradford is by Todd Mac, 2:07½; dam Mary Louise, 2:27½, by J. J. Audubon, 2:19; second dam Lois L. (dam of 4), by Allen Lowe, p. 2:13; third dam Flaxy (dam of Audubon Boy, p. 1:59¾), by Bourbon Wilkes 2:34.5, etc.

Horseman

Beth Clark, 2:05½, Holly Brand, 2:06¾, Tim Ongale, 2:08, and The Assessor, 2:08¾, make up a quartette of very fast pacers.

Fred Jamison has five youngsters by High Admiral, 2:07¾, the son of Admiral Dewey, 2:04¾, owned by McKennan Farm, Washington, Pa.

Superintendent Joe M. McGraw of McKennan Farm, Washington, Pa., sold to William McGinnis of Washington, the fast record pacing mare, The Duchess, 2:05¼.

Bold decisions from the stand do a track more good than the giving of large purses. When the public is pleased the racing will be popular and not before.

Mike Agan, 2:10½, by Lord Vincent, 2:08¾, and formerly owned by Senator Dave Tod of Youngstown, O., lost but one race during the 1913 meetings of the Gentlemen's Driving Club of Boston, Mass., and in addition won the fastest heat, which was in 2:14½.

Jesse Fisher of East Liverpool, O., purchased a two-year-old colt by Brother Direct, 2:12¾, out of a daughter of John A. McKerron, 2:04¾, which can show a surprising lot of speed. He has in Allie Walter's string at Canal Dover, O., his fast pacing mare, Royal Manor, 2:17¾, the green pacer Hetty Hal, and the record trotter Dagun, 2:26¾.

H. D. Sober, Tarentum, Pa., owner of Cavalier Patch, son of Dan Patch, 1:55¾, and Effie Powers, 2:08¾, refused an offer of \$500 for the seventeen-month-old colt Sidney Patch immediately after the youngster defeated the fast mare Society Del, 2:12¾, in a brush on the snow path. Sidney Patch is an exceptionally handsome colt.

Edgar Evarts of Galena, O., has several very promising prospects, among them being Youngster Young, 2:18¾, winner of three out of four starts; a five-year-old by Bourbon Patchen, 2:09, dam by Crescent Route, 2:08¾, and a two and three-year-old by Arlington, 2:06¾.

RAISING YOUNG JACKS.

Jennets for breeding purposes usually do better when only a few are allowed to run together. They may run with other stock, but do not fare so well with horses or mules. A jennet during pregnancy should be reasonably well fed. The feed should be of a slightly laxative nature; plenty of roughness, consisting of part alfalfa or clover, or pea hay should be had. At time of foaling the jennet should be placed in a clean stall to prevent the colt from dying of navel ill. If the time of delivery is during warm weather she may be allowed the use of a pasture without any straw stacks or manure piles, says American Breeder.

One failing of these animals is to select a place where infection is likely to be present. In a case of this kind the colt is liable to contract navel ill. The navel cord should be watched and a drying powder used immediately after birth, as navel infection is very prevalent among jack stock colts. During the nursing period the jennets should be well fed. The feed should produce an abundance of milk. A little grain in addition to good pasture is usually a necessity, and profitable.

If the colt is a jack colt it should be fed a little grain as soon as it will eat, and be halter broke early, so that the weaning process will be easy. If a mare and a filly colt could run with the jennet and her colt for a few weeks before weaning time, the process would be more easy. The jack colt should be weaned at six or seven months of age. He should be separated at any rate before he has a desire to ride his mother. This may occur before the seventh month. At weaning time the jack colt and the filly colt can be placed in an enclosure together. The

filly colt should be of a timid nature so that the jack may be the boss. These two colts should be kept together until the jack colt is 12 or 15 months of age, then they may be separated by a partition, as the jack will probably get too rough. He should be separated at any rate before he is old enough to make a service. If a jack colt makes a service loose he is liable to want to make other services the same way.

The most important thing in training a jack is never to allow him to see or smell a jennet, mule or jack, or at any time to be allowed to smell where one of these animals has been until he is well broken to serve mares. Some jacks can be ruined after they are five years of age by making services on jennets. Nothing is quite so disgusting as to have a slow jack. If these rules are closely observed, there should be little difficulty in this direction. Many breeders use their aged jacks on jennets after the breeding season is over. It has been learned that some aged jacks will be very slow after serving jennets during the season. By the use of the capsule system or the impregnator, it is not necessary that any chances be taken with the natural service. Artificial breeding, when properly done, is even surer with jennets than with mares. The degree of "heat" with these females is usually excessive; if they are not served this is not so much stimulated.

In order to have a salable jack, he must be large. In order to reach a satisfactory size, plenty of feed must be given from birth. Good oats and hay of a laxative nature are a necessity. As the age increases more roughness should be fed. Jacks and mules require more roughness than horses of a similar size. A part of the ration should be alfalfa or good clover properly cured, without any mold or dust. A few extra dollars invested in the right kind of feed will be well spent. If alfalfa or clover cannot be had, a part of the grain ration should be bran, and a good supply of carrots is a benefit. Every jack breeder would do well to have a patch of carrots especially for use in the winter time.

Every jack should have a paddock and a place to roll. This should be spaded up and kept soft, which will encourage him to roll frequently. He should have a stall in the north side of the paddock, where the door is left open at all times. By starting with a young jack in this manner, there will not be much worry about his health or general condition. The fumes from a closely built stall, without fresh air, are very injurious and have much to do with the so-called jack sores.

BREEDERS' HITCHRACK.

Every man that owns a stallion or a jack for public service should immediately arrange his fence and his hitchrack so that every mare coming to his place to be bred would be compelled to stop at a particular hitchrack. This hitchrack should be situated in such a way that the sun would shine on the ground around it as much as possible during the entire day, says American Breeder.

Practically every farmer in that district will visit that breeder's place some time during the breeding season. If there are any infectious diseases in that community it is liable to find its way to this breeder's barn. If all the horses and mares are forced to stop at a particular hitchrack before they are brought into close proximity to the breeding stock and other stock and allowing the breeder to make an examination, there will be much less danger of infection.

The fence and the hitchrack can be so constructed that visitors will be compelled to leave their stock at this particular place until they are examined. It is not uncommon to see horses come to a place of this kind with the distemper, influenza and other diseases. If the place is contaminated all the stock in the community that visits that place are liable to be sick if this precaution is not taken. By having the hitchrack situated in a suitable location the germs are soon destroyed. The sun is the greatest germ destroyer we have and it is very cheap. In case of prolonged cloudy weather the hitchrack and

ground can be sprayed thoroughly with a good germicide. This is one of the most profitable things that any breeder can do. In addition to securing the safety of his patrons' mares it behooves every breeder to be very careful about the valuable sires during the breeding season. There are certain infectious diseases prevalent among horses, that if taken by stallions or jacks is liable to stop their productiveness for several weeks, at a very profitable time.

RECOMMENDS METHODS TO IMPROVE LIVE STOCK.

This country could very profitably adopt some of the methods for live stock improvement which have been successfully followed in Hungary.

This is how F. B. Hadley of the University of Wisconsin Agricultural Experiment Station was impressed while visiting there this summer.

For nearly 100 years the Hungarian government has been engaged in building up her live stock industry by maintaining several large breeding farms where types of animals most suited for the small farmer have been developed.

Dr. Hadley reports that besides supplying a special type of horse for army service, the government provides community co-operative societies and unions with suitable stallions, bulls, boars and rams at a very moderate price and on very advantageous terms of payment.

An extremely promising future is predicted for live stock breeding in Hungary as the demand for all classes of pure bred stock is increasing throughout the world.

Conditions there do not materially differ from those in Wisconsin and neighboring states, which leads Mr. Hadley to believe that we could very profitably adopt some of the methods which have proved so successful in that country for the improvement of our live stock, particularly the further development of the community breeding associations, the results of which have already proved to be very valuable but for various reasons have been limited to cattle and horses.

The Hungarian officials have recognized the superiority of American bred horses and are importing many standard breeds for crossing with native horses to get a carriage and army animal such as is desired for active service.

QUALITY IN HORSES.

After type comes quality. It does not matter whether a horse weighs 2,400 pounds, or whether he weighs 1,200, he must have quality. If he doesn't, the market will not accept him. One man started breeding along these lines 20 years ago. He is consistent, but he can't sell his colts, and he can't win with them in the show ring.

He is an outlaw; but he has gone so far that he can't go back. So we must not only have an ideal and stick to that ideal, but we must adapt it to the market. We can be consistent and still deviate a little from the course on which we have started, in order to meet market conditions.—Dr. Carl W. Gray.

HAVE AN EYE TO THE FUTURE.

According to the dispatches in the daily papers, the Russian government is siezing all racing stables, regardless of value. This is a simple thing for the government, as one story relates that a string of race horses, valued by the owner at \$100,000, was inventoried by the Russian officials at \$500. Still, the Russians of the upper classes are immensely wealthy and it is not the financial loss so much as the horses themselves that troubles them. They have great estates that will not be devastated by the war, as the damage so far has been outside Russian domain and it does not seem probable that the scene of battle will shift to Russian territory. Some predict a short war, other experts contend that it will last two or three years. Even should it last the longer term of years the breeders of this country will not have too long to prepare for the big demand that is sure to come. The Russians have shown a marked partiality to American trotters, and so soon as the

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way is clear to replenish their breeding farms and racing stables they will place big orders for the best in this country, regardless of price. There will be no other country for them to look to even though they did not care particularly for American trotters, which, fortunately they do. One American breeder complains that he was on the eve of closing a contract with a group of Russians for almost a quarter of a million dollars' worth of trotters when the war broke out. There is no question but that these Russians and many others will be in the market so soon as the war ceases. American breeders should now prepare for this demand that is sure to come.—Western Horseman.

PERSIAN LAMB IN KANSAS.

Karakule sheep may be successfully raised in western Kansas, according to the conclusions reached by Dr. R. K. Nabours, professor of zoology in the Kansas State Agricultural College, who has just returned from a four months' trip to Central Asia. The fur-bearing sheep which Dr. Nabours investigated are raised in Bokhara, where the climatic conditions are similar to those of the western part of this state.

Careful work will be necessary, however, is the opinion of Dr. Nabours, to make the raising of these sheep a success in the United States. Hybridization is essential. This can be carried on here according to scientific methods, though in Asia its success is due to generations of practice on the part of the breeders in whose families the raising of these sheep has centered for centuries.

From the Producer To the Consumer

THE FARMERS' CO-OPERATIVE MOVEMENT AND THE SHER- MAN ANTI-TRUST ACT.

Advocating an interstate trade commission to have the power to pass upon the proposed practice of co-operation, President Charles R. Van Hise of the University of Wisconsin showed where the co-operative movement of the United States is in danger of being held up because it is liable to be declared in violation of the Sherman Anti Trust Act. In a banquet address before the Second National Conference on Marketing and Farm Credits and the Western Economic Society, held in Chicago last April, President Van Hise said:

The Sherman anti-trust act provides that "every contract, combination in the form of trust, or otherwise, or conspiracy in restraint of trade or commerce among the several states or with foreign nations is hereby declared to be illegal." A similar provision applies to monopoly or attempt to monopolize. For the violation of this act there are heavy penalties by fine or imprisonment, or by both.

This law is sweeping in its terms. It applies alike to the producer and the consumer, to the laborer and the magnate. This statement is sustained by the interpretation of the courts. Various labor organizations have been prosecuted and fined under the Sherman act. Also boards of trade engaged in marketing agricultural products are now under attack, and one fruit-growers exchange at Portland, Oregon, has plead guilty under the law and been heavily fined.

Congress well understands this situation; and, at recent sessions, they attached to the paragraph of the sundry civil bill containing an appropriation of \$300,000 for the enforcement of the anti-trust laws a proviso that none of this money should be spent in prosecuting combinations or agreements of labor, nor spent "for the prosecution of producers of farm products and associations of farmers who co-operate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products." The aim of this provision is clearly to make the Sherman law class legislation by indirection and in effect to prevent equality before the law of the manufacturer and the merchant as compared with the farmer and the laborer.

Some of the state legislatures also have seen the situation as clearly as has congress. In order to prevent the farmers from being hit by their anti-trust bills, they exempted from their scope the products of the land so long as held by the producers. This was true for Texas, Louisiana, Illinois and South Dakota; but some of these state acts got into the courts, and they were promptly declared unconstitutional as being special legislation and not giving equal protection under the laws. Regardless of this fact, it is a wholly wrong principle to make an exception by indirection from a general law. Both Ex-President Taft and President Wilson have protested against the attempt of congress in this direction. The principles of justice in regard to co-operation are alike for the manufacturers, the farmers, and the laborers.

It is clear that the Sherman act stands directly in the way of success for the co-operative movement among the farmers. Indeed until it is amended it will be an insuperable barrier to their efficient and broad co-operation.

As has been fully developed by other speakers at this convention, it is absolutely essential for the success of the co-operative movement among the farmers, (1) that they may unite to dispose of their product through selling agencies (2) that a co-operative organization may enter into agreements with the farmers requiring the latter to sell their products exclusively to the organization; (3) and that profits of a co-operative concern may be divided in proportion to the business contributed, including both sell-

er and buyer. The handling of the entire output for a given product through a selling agency, the making of contracts to sell exclusively to one organization, and the consequent regulation of prices, are all clearly in violation of the Sherman act.

Recently the supreme court has held that combinations are prohibited only when they are unreasonably or unduly in restraint of trade. Thus far, however, the decisions in regard to contracts of the kind mentioned have been very severe; and in every case such contracts have been declared to be unlawful.

Therefore, the statement above made is justified, that the Sherman act stands as an insuperable barrier to the rapid expansion of the farmers' co-operative movement. It may be

said that for the most part the farmers co-operative societies and selling agencies have escaped prosecution by the attorney general of the United States; that these organizations have not been selected for attack; and this is true. But if co-operative organizations become numerous and conspicuous, the attorney general can no more ignore the violation of the Sherman act by one great group of the people

of the country than he can for the laborers or the manufacturers. Also the fact that the Sherman law exists deters honorable men from entering into a co-operative movement which is of doubtful legality.

It is therefore vital that the Sherman act be amended if the farmers' co-operative movement is to succeed; but such an amendment should not be asked in the form of exemption of

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Get These Three Dolls

In every home where there are little girls or boys there should be plenty of dolls to make the little folks happy—and I will make it easy for you to get them.

Every little girl or boy will love Anna Belle and her two baby dolls. The illustrations on this page do not begin to show to you what these dolls really are. This is by far the prettiest family of dolls we have ever offered our readers. We have sent thousands of dollies to girls and boys, but Anna Belle is different and prettier than all others. Anna Belle is bigger than a baby—over two feet high—baby clothes will fit her and you can bend her legs and arms without fear of breaking them. She can sit up in a chair or sleep in baby's own bed. Any little girl or boy would be proud to have Anna Belle as a playmate. The two smaller dollies are "Buster" and "Betsy"—Buster is a husky boy doll with a red striped sweater; "Betsy" is a little beauty and very lovable in her bright red coat. Both the little dollies are fully dressed.

The Best Playmates

Any child will be greatly amused with this doll family and will play all day with Anna Belle, Buster and Betsy. They are practically unbreakable and will stand hard usage for years. These dollies are better for the little folks than bisque or china dolls, because they won't break, soil their pretty hair or lose their eyes, and are so inexpensive every girl or boy reader can afford to own them.

Parents

Every little girl wants a big doll. Little boys also. Think of the innocent happiness and pleasure your child would derive from owning these three dollies. Then satisfy the craving for something to love and something to play with by sending for this outfit.

Lots of Fun

to be had with these three dollies. The little girl or toddling boy who owns these dollies will just be the happiest little tyke to be found for miles around. The big little girl who owns Annabell can dress her in her own clothes and have the loveliest time! Then the baby dollies—to cut and sew for—what could be more instructive and entertaining?

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Every little girl or boy wants a big doll—here's an opportunity to get three dollies instead of one. Just think what fun it would be to have a doll family in your home. Think of the joy and happiness of the little ones when they get this delightful set of three dollies.

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To introduce this big collection of dollies we will send one complete set (3 dollies) to you if you will sign the coupon below, and return it to us at once with 15 cents. If you are not entirely satisfied when you get the dollies we will return your money. Most dollies are imported and there is going to be a great scarcity this year, so we advise you to order early.

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Enclosed is 15 cents (stamps or coin) for which send me one set of dollies as advertised.

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The farmers. Many bills have been introduced into congress which attempt to exempt this or that industry; and other bills have been introduced with the purpose of exempting labor organizations. The Sherman act should be modified under a general principle which should permit legitimate co-operation in all lines of business and at the same time prohibit all practices or co-operation which are inimical to the public welfare. This could be accomplished by a very simple amendment embodying the following idea: That the restraint of trade prohibited by the Sherman act shall be construed to include all contracts and combinations which are detrimental to the public welfare; and the presumption is that every combination and contract is detrimental to the public welfare. If this amendment were adopted any person, association, or corporation that wished to enter into a combination or contract could do so, provided the contract or co-operation was not detrimental to the public welfare. In order to protect the public the presumption would be that the contract or combination is thus detrimental.

In order that the farmers may know whether any proposed practice or co-operation is legal or illegal, it will be necessary also that an interstate trade commission be created which shall have power to pass upon the proposed practice or co-operation. This suggestion is in accordance with the message of President Wilson, in which he recommends that an interstate trade commission be created by the present congress, which commission shall have among others the power to give advice and definite guidance and information to business men without assuming control of business or becoming responsible for monopoly. He says: "The opinion of the country would instantly approve of such a commission."

Further the anti-trust acts of the several states should be amended to the same effect as proposed for the Sherman act; and also state trade commissions should be created having the same powers within the state that the interstate trade commission has for interstate commerce.

This program to amend the Sherman act so as to permit reasonable co-operation and to create interstate and state trade having among other powers that of advice will result in the following benefits:

- The efficiency which goes with industrial magnitude will be secured, and the resultant profits may be fairly distributed between the producer and the consumer.
 - The farmers' co-operative movements will become lawful.
 - Labor organizations will be free to co-operate in all legitimate ways.
- Let us strive to secure trust legislation from congress such that the co-operative movement among the farmers will be lawful; for the purpose of this movement is to benefit producers and consumers alike.

PRIZES FOR GRAIN CROPS OFFERED IN TEXAS.

To encourage the movement for a reduction of next year's cotton acreage, and for the information of the farmers of the state in order that they may prepare their land now, the Texas Industrial Congress announces its intention to offer prizes next year for the best yields, cost of production considered, on not less than five acres cultivated in wheat, oats, barley, and perhaps rice.

Because of their value for winter pasture and in preventing surface washing, and also because of their low cost of cultivation as compared with cotton, these grains are nearly as profitable as cotton in ordinary times, and are certain to be more profitable than an overproduction of cotton, in view of the European war situation. Small grains afford an admirable substitute for cotton on much of the land cultivated in cotton this year, and which, if the acreage is at all reduced, might not otherwise be utilized. The European war assures splendid prices for feed stuffs of all kinds, and the farmer who plants winter wheat and other small grains

this fall can count upon getting good prices, such as have not been realized for a number of years.

The abundant recent rains have insured enough moisture in the ground to start the proper growth of all grain crops, and there can be no better possible preparation of the soil for them than the cultivation which the land has received in growing this year's cotton crop. Grain does best when sown upon a firm seed bed that has been deeply prepared sufficiently in advance of the sowing to have become firmly settled. This is just the condition in which the cultivation of cotton has left the ground. The farmers may reasonably expect, therefore, a good yield of wheat, oats, or barley planted now in the middles between the cotton. This can be done with any of the drills made especially for that purpose, or by running a bull-tongue through the middles, making about four furrows, sowing the seed in these furrows, and then covering them with a harrow, or the seed may be sown broadcast and then covered with a harrow. Where this method is used not less than two bushels of oats and one-half bushel less of wheat should be sown; if the drill is used about one-half these quantities is sufficient.

Great care should be taken in selecting wheat, oats and barley for seed, and, if possible, seed raised in the community, which has been tested for several years, should be sown. The use of much fertilizer when planting fall grain is not advisable, but if the soil has previously been fertilized with stable manure, nothing can be better. Stable manure applied fresh, however, at the time the grain is sowed is apt to do more harm than good by pushing the grain forward too rapidly and developing a tendency to lodge next spring. In the spring, if the grain does not start promptly, a top dressing of from 300 to 400 pounds of fertilizer composed of equal parts of cottonseed meal and acid phosphate will be helpful.

A general planting of grain crops this fall not only insures good crops and high prices next year, but also promises an abundance of cheap feed for live stock, and guarantees that the live stock now on the farms will be in the best possible condition next spring for sale when the demand will be greatest. This adds no additional cost, for careful pasturage of the winter grains will not injure them, but will be of positive benefit, as it causes them to root more deeply and protects them from injury by winter freezes.

AUTUMN THE BEST TIME TO SELECT SEED CORN.

Autumn is the time to prepare for a profitable corn crop the following season. At this time the seed is most abundant and the very best can be obtained before it has been in any way reduced in vitality. Many let the opportunity pass, expecting to purchase their seed corn in the spring, but the United States Department of Agriculture's specialist in charge of corn investigations advises that the autumn is the best time to select good seed.

The best place for the farmer to obtain seed corn is from fields on his own farm, or in his neighborhood, that were planted with a variety which has generally proved most successful in that locality. Of course, if a community has an experienced and honest corn breeder on whom it may rely, the seed corn may be obtained from him.

The corn breeder who has demonstrated year after year the superiority of his corn will demand a special price for his superior seed. Such corn breeders are improving corn as cattle breeders have improved cattle. He has used special methods that farmers generally have not time to apply. Five dollars a bushel is not too much to pay and will be a profitable bargain for both parties.

What Constitutes Good Seed Corn?
By far too many consider seed good simply because it will grow. To be first class, seed must be—

1. Well adapted to the seasonal and soil conditions where it is to be planted.

FARMERS EQUITY UNION COAL

Blackbrier—Highgrade
Cantine—Semi-Highgrade

From our Illinois mines—Now used by many branches of the Farmers' Equity Union in the different States.

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SHIPMENTS ANYWHERE.

2. Grown on productive plants of a productive variety.

3. Well matured, and preserved from ripening time till planting time in a manner that will retain its full vigor.

The importance of these three requirements just enumerated has been demonstrated experimentally by the department's office of corn investigations. The results given briefly, as enumerated are as follows:

1. For a series of five years, 12 well-bred varieties were tested in 10 northern states, equivalent lots of seed being used in each state. Varieties that produced most in some states were among the poorest in others.

2. Seed ears taken from the highest yielding rows of ear-to-row breeding plats have repeatedly produced better than seed ears taken from poorer yielding rows. Seed ears from the best producing stalks found in a general field produced more than seed ears taken without considering the productiveness of the parent stalks.

3. Four bushels of ears were divided into two equal parts, one part being well taken care of and the other placed in a barn as corn is ordinarily cribbed. The well-preserved seed gave a yield on poor soil 12 per cent higher than the poorly preserved and 27 per cent higher on fertile soil, notwithstanding the fact that both lots of seed germinated equally well.

Seed Corn Gathering.

At corn-ripening time drop all other business and select an abundance of seed corn. The process is too important to be conducted incidentally while husking. When selecting seed corn give the process your entire attention. Get the very best that is to be had and preserve it well, and your increased yields will return you more profit than any other work you can do on your farm.

The only proper way to select seed corn is from the stalks standing where they grew, as soon as ripe and before the first hard freeze.

As soon as the crop ripens, go through the field with seed-picking bags and husk the ears from the stalks that have produced the most corn without having any special advantages, such as space, moisture, or fertility. Avoid the large ears on stalks standing singly with an unusual amount of space around them. Preference should be given the plants that have produced most heavily in competition with a full stand of less productive plants.

In all localities the inherent tendency of the plant to produce heavily of sound, dry, shelled corn is of most importance.

Late-maturing plants with ears which are heavy because of an excessive amount of sap should be ignored. Sapiness greatly increases the weight and is likely to destroy the quality. In many sections this fact is not sufficiently appreciated.

In the central and southern states, all other things being equal, short, thick stalks are preferable. Short stalks are not so easily blown down and permit thicker planting. Thick stalks are not so easily broken down and in general are more productive than slender ones.

The tendency for corn to produce



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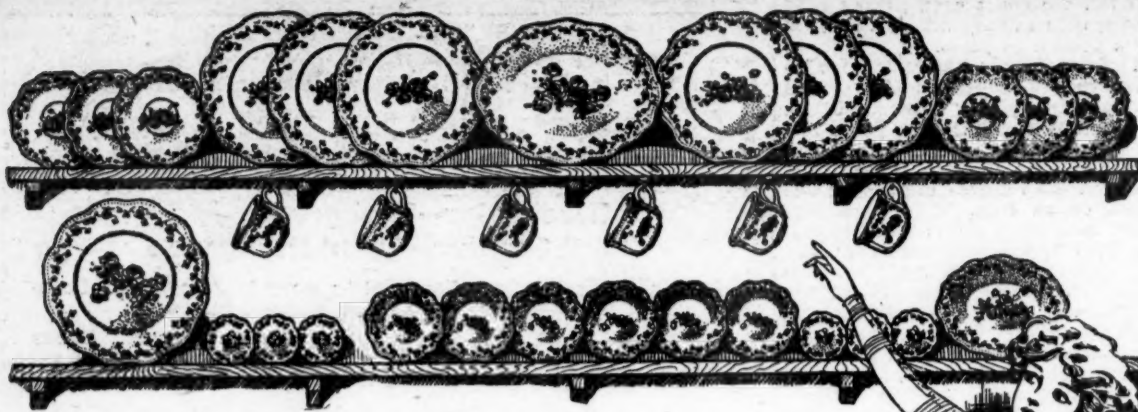


suckers is hereditary. Other things being equal, seed should be taken from stalks that have no suckers.

The same day seed corn is gathered the husked ears should be put in a dry place where there is free circulation of air, and placed in such a manner that the ears do not touch each other. Good seed is often ruined because it is thought dry enough when gathered and the precaution mentioned is considered unnecessary. Many farmers believe that their autumns are so dry that such care is superfluous. Seed corn in every locality gathered at ripening time will be benefited by drying as suggested. If left in the husk long after ripening it may sprout or mildew during warm, wet weather or become infested with weevils.

The vitality of seed is often reduced by leaving it in a sack or in a pile for even a day after gathering. During warm weather, with some moisture in the cobs and kernels, the ears heat or mildew in a remarkably short time.

The Department of Agriculture has a bulletin that gives in detail the best manner of treatment for corn after it is gathered. The bulletin also describes how seed corn should be stored during the winter and tests of the germination of seed corn. The bulletin may be had free by those who request Farmers' bulletin No. 415, on "Seed Corn," from the department's division of publication, Washington, D. C.



FREE

33 PIECE
DINNER SET
AND
41 EXTRA
PRESENTS

74
ARTICLES
ABSOLUTELY
FREE



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remains the same. Don't let this opportunity pass or you will regret it when it is too late. Now is the time.

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This magnificent 33-piece dinner set is the product of one of the finest and largest potteries in the world, the old rose and gold leaf design having become famous in aristocratic homes.

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Each set is complete and comes nicely packed in a neat box and is shipped to you by express. We will guarantee, no matter how many dishes you may have that you will prize this set above all others that you may possess.

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BETTER THAN SHE EXPECTED.

The 33-piece dinner set has been received O. K. It is the prettiest dinner set I ever saw—it is just grand. All of my neighbors who have seen the dinner set want to get a set just like mine.—S. E. McKeithen, Cameron, N. O.

WIFE TOO ELATED TO WRITE.

Little Travis (my wife) is too much elated over her dishes just received from you to write, so I write for her. They are far more beautiful and much better ware than she expected. Please accept our thanks for same.—Kelsie Travis, Hardin, Kentucky.

ALL O. K.

I received my dishes, post cards and extra surprise all O. K., and they are simply fine.—Meta Reiter, Wheatley, Ark. There is hardly a reader of this wonderful offer who cannot secure one of these beautiful 33-piece dinner sets and secure it within a few days after sending name for instructions.

Big Free Offer

All we ask is that you assist us with our work among your friends and neighbors, something that you can do much better and more easily than any employee we might send to your vicinity, and it is because you can save us this expense that we can give you such an expensive present for such a little effort on your part.

Fill out the coupon below and send it in to us and we will send you a sample set of our gorgeous Art and Religious Pictures. These pictures are made especially for us by the famous James Lee Company of Chicago, whose Art and Religious Pictures are for sale in stores all over the World.

When you get the sample set of pictures we want you to show them to 16 of your friends and neighbors, and tell them about a very special offer whereby each person you see can get a set of these big, beautiful, many colored pictures, too.

As soon as we get the coupon below with your name and address on it we will lay aside one of these handsome sets of dishes, and the 41 extra articles, and send you the sample set of Art and Religious Pictures, together with full instructions, and everything necessary to make the little work easy for you, so that as soon as you finish your work we can send you the 33-piece dinner set and the 41 Extra Articles by express without a minute's delay. An offer could not be more liberal or more fair and we know you will be delighted.

IMPORTANT

It is important that you write us accepting this offer at once before some other person accepts it in your immediate vicinity. For the one who receives our instructions first has the easiest work to do. After you get your dinner set and your friends see it there will be others waiting for a chance to accept our offer, but you should be the first.

I also include with each set of dishes my special plan for paying all express charges on the dishes. My whole plan is so simple you can't fail to earn a set of these dishes if you will only make up your mind to do so.

41 Extra Articles FREE

The 33-piece dinner set is not all you get by any means. The truth of the matter is there is so much to tell about this big new gift plan of ours that we cannot get it all in this space. It is full of SURPRISES and DELIGHTS for those of our friends who are willing to lend us a helping hand at spare times.

A Surprise

The very first letter you get from us will surprise you before you open it. It will also delight you by telling all about the big collection of rare and beautiful post cards which we want to give you in addition to the dishes.

Another Surprise

And still, THAT is not all. One of the prettiest surprises of all is kept a secret until the day you get the dishes and find a pretty present that you knew nothing about. Isn't this a fascinating idea? And what makes it even more interesting is that we have something nice for everyone of your friends and neighbors, too. We'll tell you ALL about it as soon as we receive the coupon with your name on it.

JUST SEND YOUR NAME

The coupon starts the whole thing. Just send me your name and address. I don't ask you to send any postage or anything else—just the coupon. So hurry up and send it in.

When you get the beautiful dishes, 40 post cards, and the extra surprise premium you will say, "How can you afford to give such beautiful premiums for such little work?" Never mind now HOW I am able to give these valuable gifts, on such a very, very easy plan, the fact remains that I DO give them only to my friends who are willing to lend me a helping hand during their spare time.

SIGN THE COUPON—IT STARTS EVERYTHING.

Return This Coupon Today

Colman's Rural World,
St. Louis, Mo.

I want to get a 33-piece dinner set and the 41 extra gifts. Send me the sample set of Art and Religious pictures, and tell me all about your big offer.

Name

P. O.

R. F. D. State.....

A READING COURSE IN AGRICULTURAL ENGINEERING.

The United States Department of Agriculture issues, from time to time, lists on special topics. The list on agricultural engineering may be obtained by writing the Division of Publication, Washington, D. C. In writing for these pamphlets, it is best to check the bulletins you are interested in and mail it with your request.

Modern conveniences for the farm home. Farmers' Bulletin 270.

Use of concrete on the farm. Farmers' bulletin 461.

Corn harvesting machinery. Farmers' bulletin 303.

Use of alcohol and gasoline in farm engines. Farmers' bulletin 277.

Repair of farm equipment. Farmers' bulletin 347.

Use of split log drag on earth roads. Farmers' bulletin 321.

Sand-clay and burnt clay roads. Farmers' bulletin 311.

Macadam roads. Farmers' bulletin 338.

Benefits of improved roads. Farmers' bulletin 505.

Tile drainage on the farm. Farmers' bulletin 524.

Practical information for beginners in irrigation. Farmers' bulletin 243.

How to build small irrigation ditches. Farmers' bulletin 158.

FEEDING PUMPKINS.

In all localities where pumpkins are extensively grown they are used for cow and hog food in the late fall and early winter months as long as they can be kept without deterioration. The pumpkins should be gathered before early frost, if possible. Sort out the immature ones and feed at once; the ripe specimens can be piled in a building and covered with a deep layer of straw or hay during freezing weather. Or, if storage room in a building is not available, pile the pumpkins up in as sheltered a spot as possible and set up fodder on each side to a thickness of several feet. Here, they will keep perfectly until Christmas or even later.

As food for milk cows, pumpkins cannot be excelled, coming as they do at that season of the year when grass begins to fail and before we want to commence feeding grain. Pumpkins have about the same analysis as the various kinds of roots and they are substantially of the same value as roots for feeding to stock. According to an analysis made by one of our experiment stations, one ton of clover hay is worth as much for dairy cows as seven tons of pumpkins; but to feed the latter in connection with clover hay and other dry matter, the pumpkins have a relatively greater feeding value on account of their succulence. A succulent food in a ration always adds some value to it because it enables the animals to digest and assimilate a little more of the dry matter.

There used to be an impression among some dairymen that the seeds should be removed from the pumpkins before feeding them to the cows, as it was believed that the seeds had a tendency to decrease the flow of milk. Tests proved, however, that there was no good foundation for this belief. Of course, pumpkins may be fed to excess, in which case the seeds act injuriously upon the kidneys, but where the pumpkins are fed moderately no injurious results need be feared.

The greatest value obtained from pumpkins fed to hogs along with corn comes from the corrective influences which they exercise upon the digestive system. They have a cooling influence on the pig's system and keep his stomach and bowels in perfect condition while he is being fed a large amount of corn during the finishing process, and, consequently, he is less subject to ailments at that critical time. But the seeds of pumpkins are so exceedingly rich in protein that the pigs should not have too many of them. Pumpkin seeds are a natural vermifuge and are valuable for hogs afflicted with worms.—W. F. P.

Poultry droppings make rich ground; many a poultry keeper has made his garden plot too rich with this form of fertilizer and been forced to haul a poor grade of earth to mix with the garden soil and bring it away from its over-fertility.